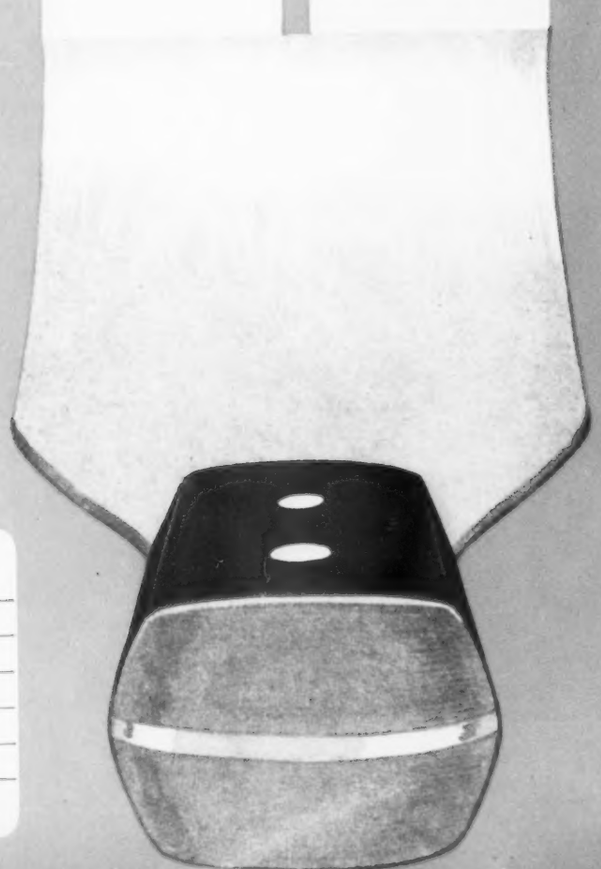
PRINTING EQUIPMENT *Engineer*

An Industry-wide Technical Publication



april 1953

PLEASE ROUTE THIS COPY TO

Manager	Pressroom Foreman
Production Mgr	Bindery Foreman
Plant Supt	Mailing Foreman
Platemaking Foreman	Maintenance Supt
Composing Foreman	Purchasing Agt

For filing, please return to

Looking for ways to Stop Production Leaks in the Composing Room?.

MANY a publisher, owner or mechanical executive of a printing plant has been surprised to find the difference in his ad or job production after an "on approval" installation of a Star Quadder on his Linotype or Intertype machine.

The new Model F Star Quadder is hydraulically operated. It is the last word in mechanical and operational perfection. Here is a piece of equipment free of trouble and down time. Maintenance is infinitesimal. You too can ask us for an "on approval" installation.

PRECISION
TRADE ★ MARK

LINOTYPE PARTS COMPANY

Factory and Main Office
SOUTH HACKENSACK, N. J.

INCORPORATED

Branch Office
1337 BROADWAY KANSAS CITY 6, MO

CHICAGO • MINNEAPOLIS • DENVER • LOS ANGELES • BOSTON

Across the nation, around the world, around the clock,
one thousand STA-HI Master Formers are on the job
in newspaper plants both large and small. They make
possible better mats, better plates, better printing...

STA-HI CORPORATION • BOX 152 • WHITTIER, CALIFORNIA

1928 STA-HI 1953

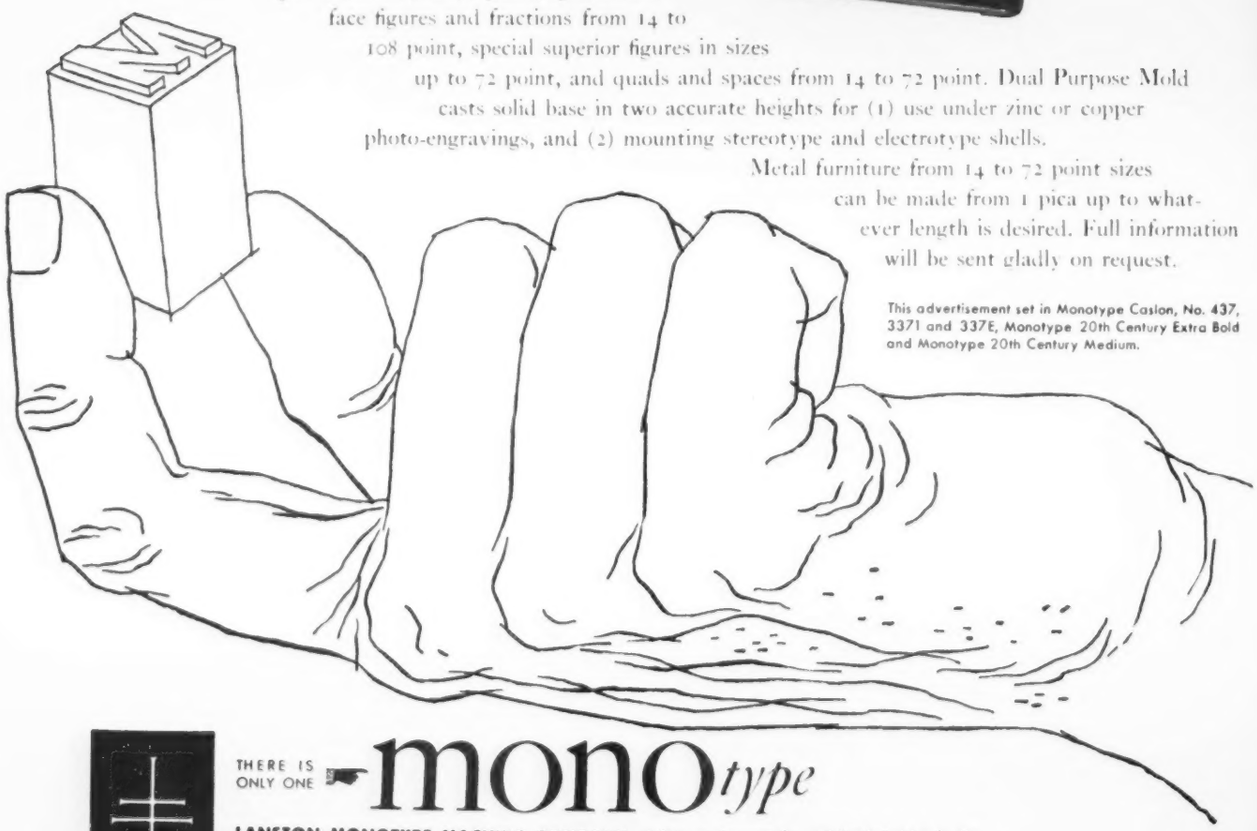
OUR SILVER ANNIVERSARY OF SERVICE TO AMERICAN NEWSPAPER PUBLISHING

THE MONOTYPE
Giant Caster

proves that lines of display type can be set by hand in type from cases faster than by any other method

The Monotype Giant Caster makes type of uniform height-to-paper, clear and sharp of face for good printing, and densely cast to resist the pressures of all printing, plating, and mat-making processes. The typographic resources available to Monotype Giant Caster users include all Monotype cap and lowercase fonts, figures and points in all available sizes from 14 to 72 point and 84 point title line, special ornaments and corner-pieces from 14 to 72 point, special full-face figures and fractions from 14 to 108 point, special superior figures in sizes up to 72 point, and quads and spaces from 14 to 72 point. Dual Purpose Mold casts solid base in two accurate heights for (1) use under zinc or copper photo-engravings, and (2) mounting stereotype and electrotype shells. Metal furniture from 14 to 72 point sizes can be made from 1 pica up to whatever length is desired. Full information will be sent gladly on request.

This advertisement set in Monotype Caslon, No. 437, 337I and 337E, Monotype 20th Century Extra Bold and Monotype 20th Century Medium.



THERE IS ONLY ONE **monotype**

LANSTON MONOTYPE MACHINE COMPANY, 24th at Locust St., Philadelphia 3, Pa.

BRANCH OFFICES: *116 Spring St., N. W., Atlanta 3, Georgia • 170 Summer St., Boston 10, Massachusetts*
216 W. Jackson Blvd., Chicago 6, Illinois • 441 Lexington Ave., New York 17, New York
55 New Montgomery St., San Francisco 5, California
IN CANADA: *Monotype Company of Canada, Limited, 77 York St., Toronto 1, Ontario, Canada*

Action Photo

No Reader Likes a Poorly Folded Newspaper!

SCOTT "Extra Hi-speed" Folders assure neatly folded newspapers. The only folder built with a 3 to 2 ratio, i.e., a three-surface folding cylinder with patented expansion bands and co-acting two-surface cutting cylinders. "Straight" or "collect", book form or sectional, makes possible the successful handling of all newspapers from a 4-page tabloid to a 96-page full size newspaper. No other folder has this wide range capacity.

SCOTT Folders start with the units without lost motion to break webs. The number of pages being printed does not restrict the speed of the folders. When you use a SCOTT 3 to 2 ratio folder, the inside section of a collated newspaper does not protrude beyond the outside section. All other folders are 2 to 1 ratio and cut the outside section shorter, causing poorly folded newspapers.

The features of SCOTT Folders assure the publishers, equipped with SCOTT Presses, the greatest performance in delivering a well printed and neatly folded newspaper.

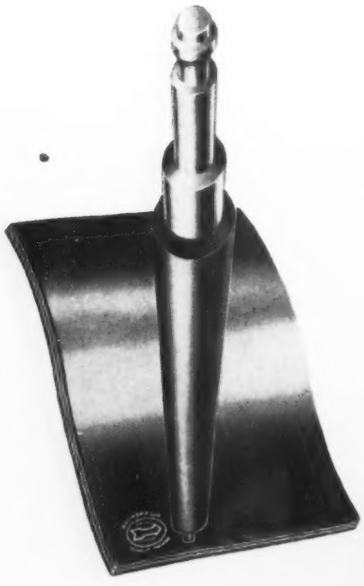
Modernizing . . . Expanding . . . Planning a new plant . . . Consult SCOTT on the fastest, most versatile newspaper press equipment ever developed. We invite your inquiries.

Buy with Confidence . . . Buy SCOTT

15-I-14

WALTER SCOTT & CO. INC.

PLAINFIELD, NEW JERSEY



Buying the best is never an expense—it's an investment. When you equip your shop with Mercury Rollers and Blankets, they provide you with savings and efficiency which could be achieved in no other way.
Your presses *deserve* Mercury accessories.

MERCURY ROLLERS AND BLANKETS

RAPID ROLLER CO.
FEDERAL AT 26TH
CHICAGO 16, ILL.

D. M. RAPPORT
PRESIDENT

PRINTING EQUIPMENT *Engineer*

APRIL 1953

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in the commercial, magazine, private plant and daily newspaper fields.

Volume 83 **Number 7**

PRINTING EQUIPMENT *Engineer*, Published monthly at 1276 West Third St., Cleveland 13, Ohio.

Copyright 1953 by Willsea Publishing Co.

EDITORIAL STAFF

MacD. SINCLAIR, Editor

ADAM HENRY REISER
Associate Editor

EDWARD H. OWEN
Assistant Editor

BUSINESS STAFF

DON WILL, Publisher

William L. Osborn, Eastern Manager, 1712 Grand Central Terminal, New York 17, N. Y. Phone: MUrray Hill 6-5980.

Melburn O. Simmons, Mid-West Manager, 333 North Michigan Ave., Chicago 11, Ill. Phone: DEarborn 2-6467

George Gell, Central District Manager, 1276 W. Third St., Cleveland 13, Ohio. Phone: CHerry 1-6645.

Subscription price per year, $3.50 in advance in U.S.A. Single copy current issues, 35c; feature issue $1 per copy; December Equipment and Supplies Catalog Issue $2 per copy in United States, $2.50 outside of United States. (U. S. currency). Subscription in foreign countries $4.50 (U. S. currency) in advance. Canadian printing plant mechanical and production executives receiving Printing Equipment Engineer under CCA regulations will be charged $1 postage per year in advance to cover additional postage to Canada.

Member Circulation CCA Controlled Audit

Acceptance under section 34.64 P. L. and R., authorized.

Printed in U. S. A.

LEADING ARTICLES

Saw Blades—What You Should Know About Them 27
ROBERT A. BLACKBURN

Research in Silk Screen Printing 30

Mid-Atlantic Newspapers Seek Better Operating Methods 31

Space Saving Ideas for the Print Shop 34
LILLIAN STEMP

From Stone Age to Bi-Metal—III 38
AXEL LUNDBYE

Northwest Conference Educational Sessions 40
HORACE ANNIS

Solvent Research Project Started 44

Books 46
- Pressmen's Ink Handbook, 46
- Controlled Etching of Copper, 46
- Chemistry of Lithography, 46
- Two Important Publications by PIA, 46
- GPO Style Manual, 66

Recent Equipment Reports 48

Patents For the Graphic Arts 49

Executive Paragraphs 59

Conference Dates 62

Equipment and Supplies 10
- Flint's Insta-Lith Ink, 10
- Galley Proof Press, 10
- Knurling Machine for Preventing Workups, 10
- Flat Plate Shaver, 18
- Mohr Measure Control, 18
- Telescopic Tilting Fork Stacker Truck, 20
- Airtube Systems Booklet, 20
- Adjustable Tray for Collating, 24
- Hand Paper Cutter, 24
- High-Gloss Flexographic Ink for Cellophane, 24
- Electronic Matrix Detector, 44
- Standardized Gear Drives, 67
- Package Truck, 68
- Improved Spray Unit, 68
- Silk Screen Catalog, 69
- Small Parts Cabinet, 69
- Offset Press Specimens, 69
- Fork Truck Load Stabilizer, 69
- Plant Electric Power Distribution Practices Bulletin, 69
- Triple Aplanatic Magnifier, 70
- Gang Tag Attachment, 70
- Multi-Color Gravure Press, 72
- Fotomaster Camera Bulletin, 72
- Silk Screen Press For Small Size Sheets, 72
- Temperature Control Manual, 72

AN INDUSTRY-WIDE TECHNICAL PUBLICATION

BUILT HOE BEST

for

Uninterrupted Production

minimized paper wastage

easy push-button control

One of the most important factors in making possible modern high-volume newspaper production has been the development of the HOE FULL-SPEED WEB-SPLICING MECHANISM.

The most widely used equipment of its kind, not only is it installed on Hoe Newspaper, Rotogravure, Magazine, Multi-Color and Web Offset Presses, but it also is utilized with many presses of other makes.

In presses so equipped — with Hoe three-arm reels, running belt automatic tensions and full-speed web-splicing mechanisms — paper roll changes are made without any slowdown in press speed.

This equipment also makes possible such other advantages as —

- **Maximum visibility and simplicity of operation**
- **Ease of loading**
- **Non-web-abrading tension**
- **Use of simple and inexpensive splicing materials**

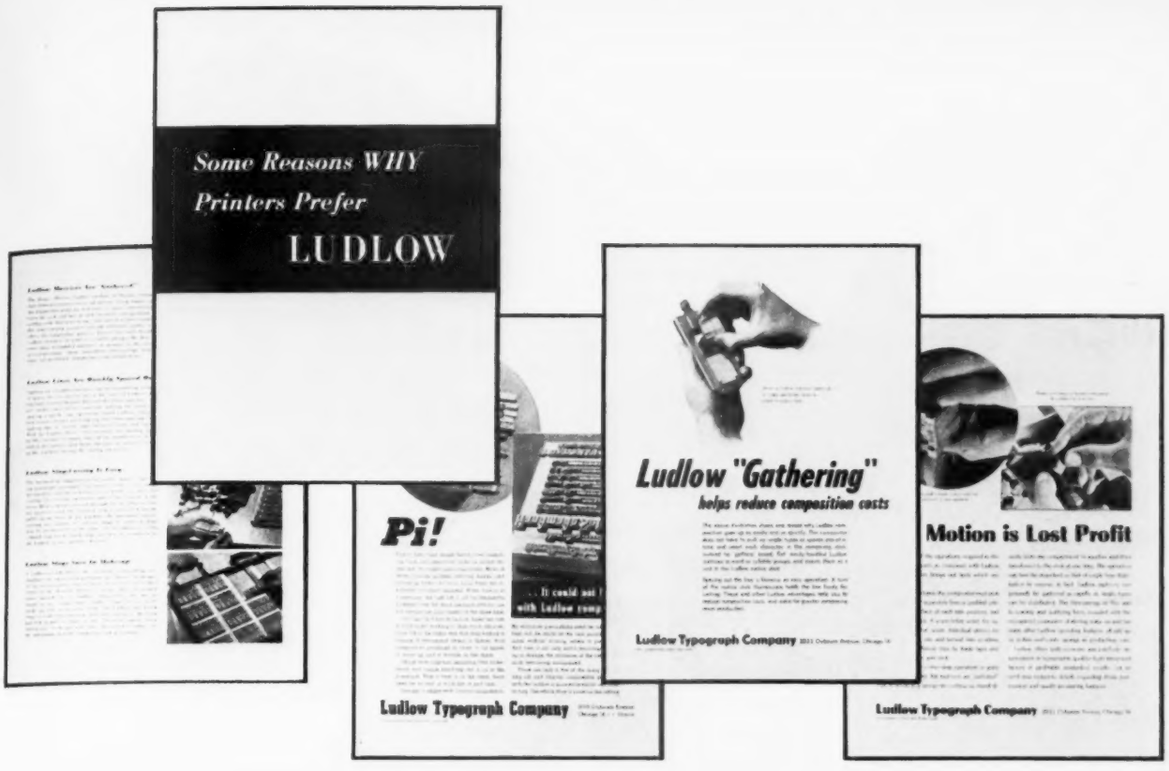
An automatic auxiliary spindle brake tension picks up and maintains uniform tension during splicing sequences, and a one-piece knife completely severs the web.

Production is continually maintained at full press speed and paper wastage cut to a minimum.

R. HOE & CO., INC.

910 East 138th Street • New York 54, N. Y.

BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO
BIRMINGHAM • PORTLAND, ORE.



"Some Reasons Why Printers Prefer Ludlow"

That's the title of the big, new 32-page booklet we have just completed. It outlines in detail some outstanding Ludlow advantages and operating economies which you should know about.

This new booklet graphically illustrates and describes the way in which the Ludlow helps to solve such printing plant problems as type shortages, type breakage, scarcity of spacing material, excessive press make-ready, press work-ups, congested floor space, multiple forms, and ruleform composition—to mention just a few.

As you go through this booklet you will realize some of the reasons why so many progressive printing and publishing firms, specialty printers and others have discarded the old, time-honored typesetting methods and have changed to the improved Ludlow system of all-slug display and job composition.

Send for your free copy of this new 32-page booklet—it will give you a better understanding of Ludlow's contribution to efficient composing room production. It is real information for you.

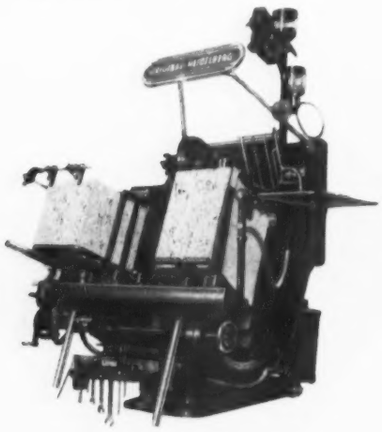
LUDLOW TYPOGRAPH COMPANY

2032 Clybourn Avenue, Chicago 14, Illinois

Set in members of the Ludlow Tempo family

Compare not CLAIMS

Yes, compare the *facts*, Mr. Printer. Facts, not claims prove points. Compare the Heidelberg to other best known platen presses. See *why* the Heidelberg is rated 20 years ahead in design and efficiency . . . *why* it has become the top choice of printers the world over. Let us arrange for a Free Demonstration.



ORIGINAL HEIDELBERG

Distributors of Heidelberg Automatic Presses

HEIDELBERG EASTERN SALES CO.
45-45 Thirty-Ninth St., Long Island City 4, N.Y.
227 North 3rd St., Columbus 15, Ohio

HEIDELBERG WESTERN SALES CO.
118 E. 12th St., Los Angeles 15, Calif.

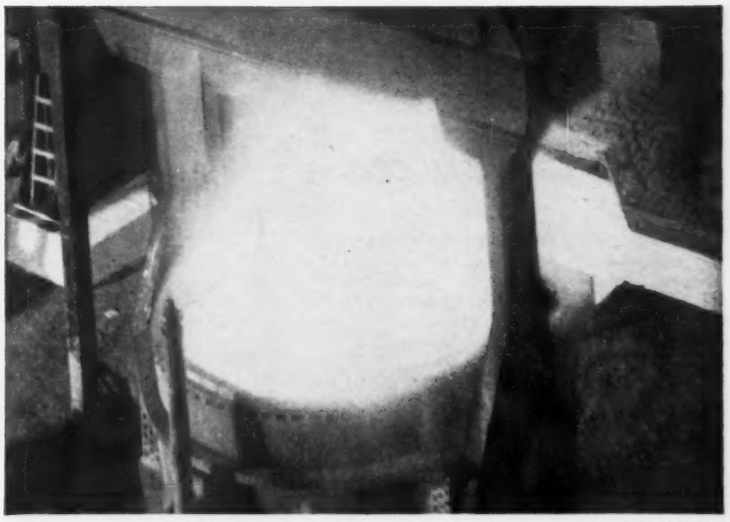
HEIDELBERG SOUTHERN SALES CO.
120 N. Sampson St., Houston 3, Texas

CHECK CHART ON 3 MOST POPULAR PLATEN PRESSES

STANDARD EQUIPMENT AND FEATURES	ORIGINAL HEIDELBERG	PRESS A	PRESS B
One piece cast frame and backbed	YES	NO	NO
Toggle Impression	YES	NO	NO
Impression safety device	YES	NO	NO
Side arms and impression cams	NO	YES	YES
Non-offset spray gun — built in	YES	NO	NO
Single adjustment impression control	YES	NO	NO
Central "one shot" lubrication	YES	NO	NO
Cylinder ink distribution	YES	NO	NO
Single stroke pump	YES	NO	NO
Replaceable roller tracks	YES	YES	YES
Adjustable roller tracks	YES	NO	YES
Two-up feeding attachment	YES	EXTRA	EXTRA
Aero-dynamic delivery	YES	NO	NO
Drop ink disc	NO	YES	NO
13" feed and delivery	YES	NO	NO
Automatic press stop	YES	NO	NO
Automatic impression throw-off	* NO	YES	YES
Built-in wash-up device	YES	NO	NO
Vibrator roller	YES	YES	YES
Built in feeder (not attached)	YES	NO	NO
Drop fountain	YES	NO	NO
Rotary feed system	YES	NO	NO
Maximum speed	5,000 HR.	3,600 HR.	3,600 HR.

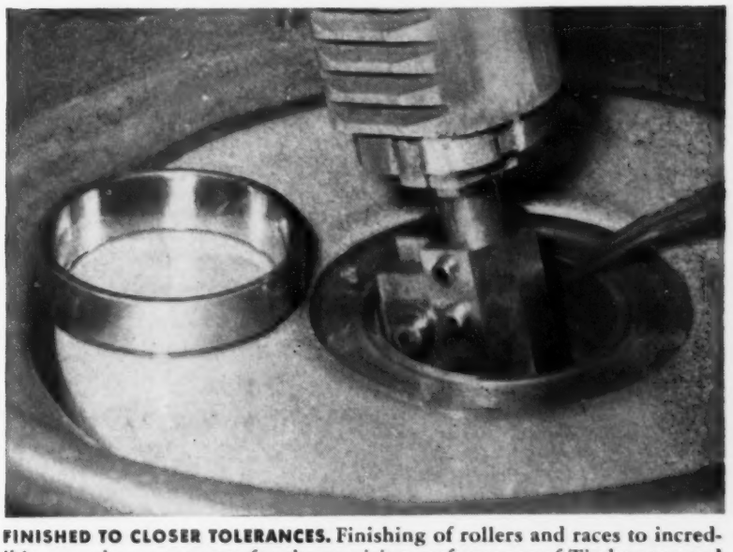
*Impression throw-off not required on Heidelberg as press automatically stops

FROM START . . .



WE MAKE OUR OWN STEEL to insure top quality from start to finish. The special grade alloy steels which give Timken bearings their strength and resistance to wear are made in our own steel mills.

TO FINISH . . .



FINISHED TO CLOSER TOLERANCES. Finishing of rollers and races to incredible smoothness accounts for the precision performance of Timken tapered roller bearings.

TIMKEN® bearings give you more for your money than any other bearing

TIMKEN® bearings are the only bearings that give you all these advantages: advanced design, precision manufacture, rigid quality control, special analysis Timken steels. That's why you should be sure that the tapered roller bearings you use are Timken bearings. Always look for the trade-mark "Timken" stamped on every bearing. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ont. Cable address: "TIMROSCO".

TIMKEN

TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS

NOT JUST A BALL ○ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ⓘ AND THRUST →ⓘ← LOADS OR ANY COMBINATION →✳←

Equipment and Supplies

If you wish additional information concerning equipment, supplies and/or technical literature, please make your request to PRINTING EQUIPMENT Engineer, 1276 West Third St., Cleveland 13, Ohio.

Flint's Insta-Lith Ink

HOWARD Flint Ink Co. has announced what is claimed to be a fast setting and drying offset ink called Insta-Lith. Flint also has prepared a colorful broadside printed by offset using various Insta-Lith inks. Four-color halftones, duotones, black - and - white halftones and solids are included in the bulletin to show the results obtained with the inks. Sponsor claims Insta-Lith ink permits short runs to be backed up immediately and finished jobs to be cut, folded and delivered without delay. The ink is said to be suitable for printing on all kinds of offset stock. Flint also claims that Insta-Lith resists water, is ready for the press without doctoring, has a semi-gloss finish and provides good trapping. It is available in a wide range of colors. If copies of the bulletin are requested, please refer to PEE No. 593.

Galley Proof Press

VANDERCOOK & Sons, Inc., has announced an electric galley proof press which will accommodate galleys up to 10 in. in width. Known as the Vandercook 22 Economy model, it is

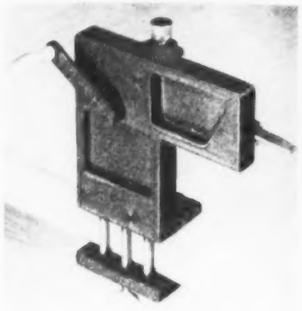
equipped with a speed adjustment permitting an operator to pull 20, 30, 40 or more proofs per min.

Sponsor claims inking rollers and impression cylinder can be changed in a few minutes. The open bed of the press is designed for ease in feeding of sheets and changing galleys. Bed size is 10 in. by 25½ in. and floor space required is 1 ft. 11 in. by 3 ft. 8 in.

Please refer to PEE No. 579 if more information is desired.

Knurling Machine for Preventing Workups

A MACHINE which knurls the sides of leads and slugs to prevent workups in a form on the press, has been reported by the LaJacs Company. Developed by J. A. Smith of Minneapolis, Minn., it is stated that the knurled leads and slugs when distributed through a



form with knurled edge down causes the pressure to be exerted downward when

(*Continued on Page 18*)

INFLATION... Licked!

Russell Ernest Baum

615 CHESTNUT STREET • PHILADELPHIA 6, PA.

Telephone: LOMBARD 3-8164

DEAR GRAPHIC ARTS INDUSTRY:

YOU made it possible. You mailed . . . wired or phoned countless orders, eliminating all sales costs and enabling us to ship over $9,000,000. worth of BAUM-FOLDERS the past three years, at the Miraculously-low . . . Pre-Korean 1950 prices.

Since September 1, 1949, we gave five wage increases totaling 42c an hour and absorbed 20% to 35% increase in cost of aluminum . . . steel . . . motors . . . pumps, etc. So, today, some models being sold for less than actual cost and (regretfully) a moderate increase is inevitable . . . to take effect, without further notice, in April. Therefore . . . DO order YOUR "Gold-Mine for a Life-Time" NOW. As low as $100. initial . . . balance 30 months out of increased "Velvet" PROFITS. No finance charge . . . just simple interest.

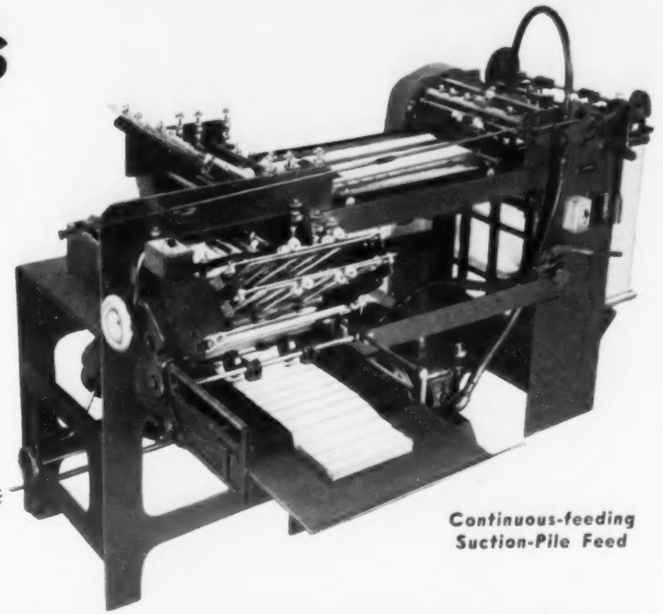
Phone me NOW . . . collect . . . Lombard 3-8164 . . . Philadelphia. Let's talk it over. Thanks a million.

Russell Ernest Baum

1477 JUNIOR JET GOLD-MINES
Shipped in Past 33 Months

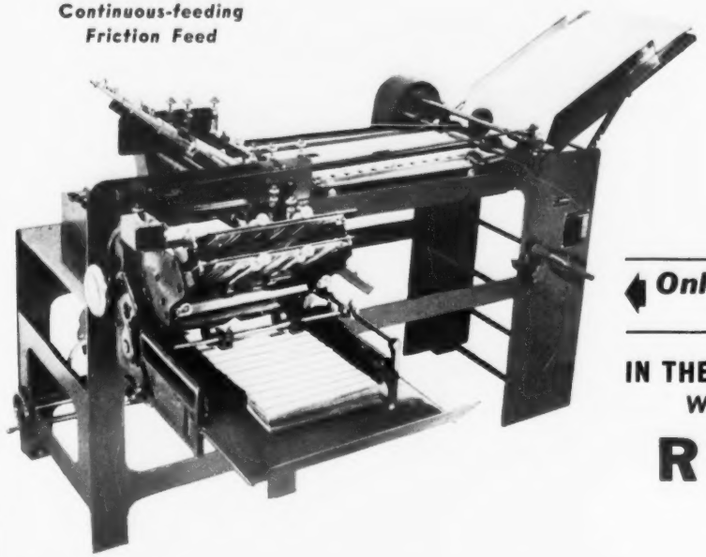
The Junior Jet 17 x 22 Five-fold Life-time GOLD-MINE

5 folding sections . . . 1, 2, 3, 4 or even 5 folds in 1 operation. 60 popular styles of folds, parallels or right angles and, of course, parallels and right angles in the same operation, 4 pages to 24 pages. Multiple folding . . . two or more on and cutting out bleed trims and end trims while folding.



Continuous-feeding Suction-Pile Feed

Continuous-feeding Friction Feed



- **Closest precision construction insures feeding thinnest stock . . . onion skin or Bible stock.**
- **Perfection in accuracy . . . at highest speed.**
- **Fastest folder ever built . . . greatest production therefore greatest profit.**
- **A little bindery in itself . . . for it's also a lightning-speed Automatic Perforator . . . Automatic Cutter . . . Automatic Scorer . . . Automatic Folder.**

Only $100 initial and $43 a month for 30 months, no finance charge

(just simple interest 6% per annum on unpaid balance)

IN THE 50's, THE 60's THE 70's...IT WILL RETURN ITS INVESTMENT MANY TIMES OVER

Why try to do without it . . . how much will it COST you to be THAT foolish?

RUSSELL ERNEST BAUM, Inc.

WORLD'S GREATEST FOLDER VALUES . . . Over 20,000 Baumfolders creating profits daily.

615 CHESTNUT STREET, PHILADELPHIA 6, PA.

Col

IPI
pro
per
exa

To
ont

Thi
It
pro
and

IP

IPI
Loo
pri
rely

INT

Pri

RE

...or any other color that you want matched

Color matching a sample of printing ink is a job of decimal proportions.

IPI craftsmen test each match as it progresses on a Vandercook No. 4 proof press. They pull proofs on the same stock to be used in the actual press run. The split fountain or roller permits the two inks—the original and the new batch—to be run off simultaneously in exactly the same ink-film thickness for a true comparison of color and strength.

To eliminate guesswork when inking the plate—to measure out correct amounts of the two inks onto the roller—IPI technicians use an instrument called a Volumeter.

This device—seen at left—closely approximates the ink fountain settings on a production press. It establishes an accurate basis for predicting actual commercial press results from laboratory proofs. Thus, IPI customers are assured greater color uniformity with ink that has been tested and proven on the press before shipment.

IPI service at work for you

IPI complete ink service facilities are at your disposal in printing centers from coast to coast. Local IPI service stations and branches are staffed by local people who know your special printing problems intimately and are ready to help you solve them. That's why you can always rely on IPI for ink service that will help make your printing better. Don't fail to call on us!

IPI and IC are trademarks of Interchemical Corporation

INTERCHEMICAL CORPORATION

Printing Ink Division • *67 West 44th Street, New York 36, New York*

RELY ON IPI FOR LEADERSHIP IN INK RESEARCH

Still the Most Modern and Dependable...

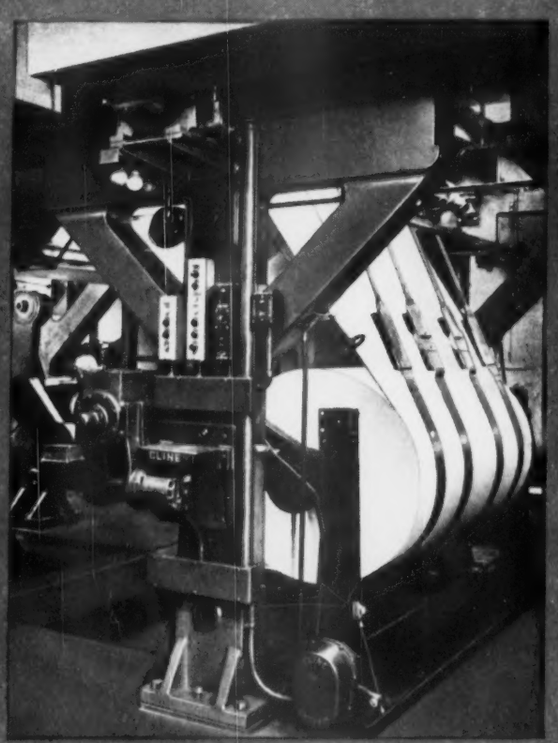
Cline Electric

Reels... Tensions... Pasters

No other equipment can match Cline Electric Reels, Tensions and Pasters for dependability and speed . . . a fact well proved by the great newspapers that continually specify Cline when enlarging or remodeling their plants.

With Cline Speed Pasters it is not at all uncommon to run *hour after hour without a stop* so that important "net papers per hour" figure is never lowered by stops and slow downs or the loss of dozens of papers per splice so common with wet glue pasters.

Cline Automatic Electric Tensions are the *only electric tensions* made . . . and there is nothing that acts as quickly and precisely as electricity. They can be applied to any existing reel and require a minimum of space.



Cline

ELECTRIC MANUFACTURING COMPANY

3405 WEST 47TH STREET, CHICAGO 32

San Francisco 8, California • New York 17, N. Y.

BIG NEWS!

WESTERN GEAR WORKS AND ORVILLE DUTRO & SON EXPAND PRINTING PRESS LINES

to Keep Pace with Tremendous Demand

Our 65th year

Lynwood Plant where Speed-Flex presses are made, the largest manufacturers of printing presses West of the Mississippi

New Speed-Flex presses are in the making!

Western Gear Works and Orville Dutro & Son, Inc., operating jointly, are in the process of developing several new pieces of printing equipment — equipment that will provide new opportunities in the printing industry.

These new machines are the result of an enlarged graphic arts program recently set up by Western Gear Works and Orville Dutro & Son, Inc., to provide new facilities for research and development. Thus, Speed-Flex equipment will open new channels of business as well as decrease production costs in established lines. These developments spell new opportunity to alert and progressive printers.

Keep in touch with these Speed-Flex developments. These streamlined presses will be engineered for convenience, accuracy and consistent production at incomparable speeds — presses that reflect the pride of ownership — the satisfaction of having the best.

MODEL D SPEED-FLEX PRESS prints on one or both sides of the paper, numbers and imprints in an additional color, perforates longitudinally and crosswise, pastes on carbon and cuts off sheets 17" long by any width from 5" to 15" at speeds up to 20,000 per hour. Makes you competitive on snapout jobs and leaves your competition trailing on ordinary form work.

direct inquiries to

Orville Dutro & Son, Inc.

PRINTING PRESS SALES AND SERVICE

1206 Maple Ave., Los Angeles 15, California

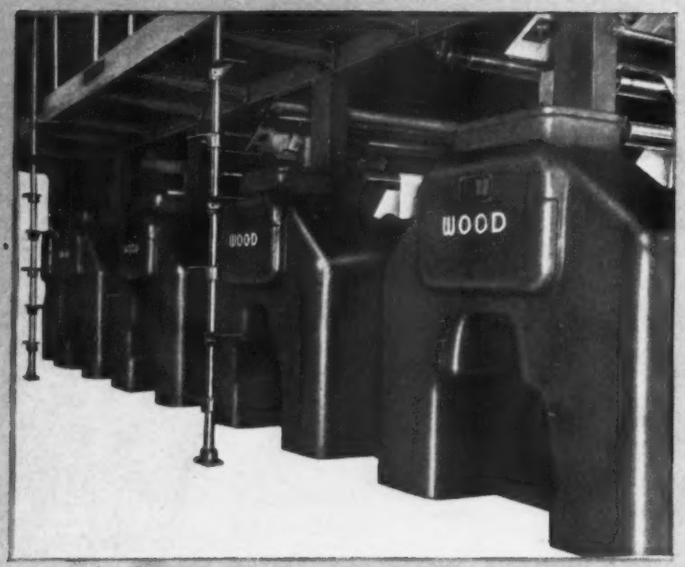
RICHMOND 9377

NEW YORK, N.Y.
1133 BROADWAY
OREGON 5-9014

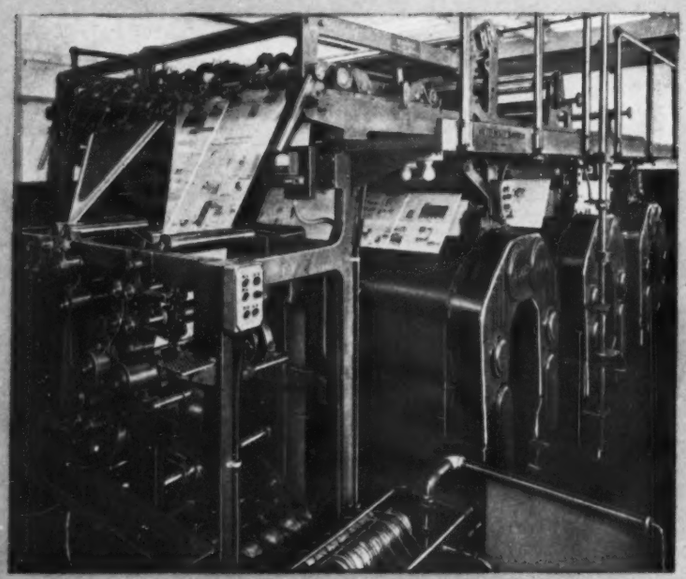
CHICAGO, ILL.
110 SO. DEARBORN ST.
RANDOLPH 6-7971

WESTERN GEAR WORKS
PRINTING PRESS MANUFACTURERS

Wood Pressroom Equipment is noted for FINE PRODUCTION!



WOOD METROPOLITAN COLOR – ADAPTABLE BLACK UNITS provide heavy-duty high-speed facilities for modern newspaper printing.



WOOD COSMOPOLITAN PRESS offers, by means of the Intrasertor, the flexibility of two page jumps on collect runs to the medium size newspaper. Provisions are available for R.O.P. color printing.

IF IT'S Wood IT'S GOOD

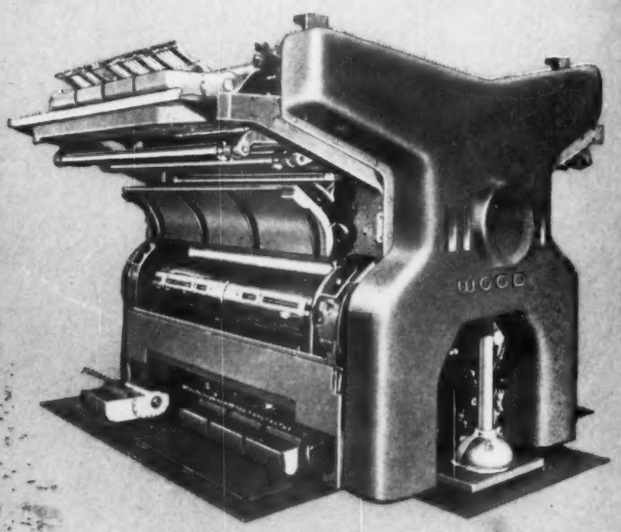
WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY • SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17

WOOD builds smooth-running, dependable presses for big city dailies and smaller city newspapers, designed to keep pace with any production schedules. It's the kind of equipment that proves its worth year after year in the plants of America's busiest newspapers.

At the WOOD plant, *quality* is paramount. Mechanical excellence through top engineering and workmanship produces presses that are unsurpassed from any standpoint of fine production.

From big city dailies to smaller city newspapers, WOOD presses consistently print many of the best looking newspapers in the land! The reason is simple: QUALITY, through and through.



WOOD METROPOLITAN COLOR UNITS provide fine quality R.O.P. color printing in conjunction with Color Adaptable Black Units.

WOOD manufactures a complete line of Reelroom equipment *in addition to their famous Pressroom and Stereotype machinery. Send for descriptive literature.*

it's a trick of the trade

• To support the center of a long imposing surface, place one or two planer jacks under the imposing table. This "reinforcement" adds to the over-all stability of the table and maintains the accuracy of the working surface.

BUT IT'S NO TRICK TO ECONOMIZE ON LOCK-UP

WITH Challenge® HI-SPEED QUOINS

Challenge Hi-Speed Quoins eliminate so much waste motion, they're bound to improve your present method of lock-up. Just think: No loose parts to gather . . . no reglets to insert . . . no slippage or work-ups . . . and only ONE Hi-Speed Quoin to do the work of four ordinary quoins! These advantages add up to as much as 80% savings in time and labor. *Moreover, you get a better lock-up!* Expansion is direct and powerful . . . and positive accuracy is secured quickly and easily, no matter how many times the form is locked and relocked. Challenge Hi-Speed Quoins are made of the finest, rust-proof plated steel to give years of hard service. In 7 sizes to meet all requirements.

Write for complete details today.

722

THE CHALLENGE MACHINERY COMPANY

Office, Factories and Show Room: Grand Haven, Mich.
Over 50 Years in Service of the Graphic Arts

DEALERS IN ALL PRINCIPAL CITIES

Equipment & Supplies

(Continued from Page 10)

the form is locked up. Sponsor claims the form will hug the bed of the press and sponginess that causes workups is eliminated. Design of the knurling machine (shown in the accompanying illustration) permits it to be clamped to the corner of an imposing table or the side of a work bench. The number of knurled leads and slugs required depends upon the size of the form being run. For further information, please mention PEE No. 575 in your request.

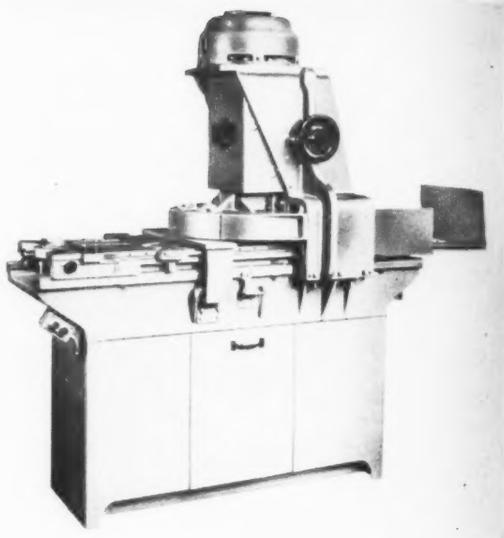
Flat Plate Shaver

WESEL MFG. CO. has announced a flat plate shaving machine designed specifically for shaving plastic plates, but capable also of shaving electrotypes, stereotypes and wood blocks. Sponsor claims that plastic plates of 11 pt. thickness can be shaved on the machine within a tolerance of plus or minus 0.001 in. It will accommodate plates of any size up to a maximum size of 21 in. by 30 in., and from 0.140 in. to 1 in. in thickness.

The shaver employs a vertical milling principal and, it is further claimed, no heat is generated during the shaving operation. Up to 1/16 in. can be shaved from the back of the plate in a single operation.

The carbide cutter inserts have four cutting edges, only one of which is in use at any particular time. A new cutting edge may be turned into position on each of the several tool holders without removing the cutters from the machine. This procedure may be repeated four times before the carbide cutters must be removed for grinding.

When requesting additional information, please mention PEE No. 598.



The Wesel Flat Plate Shaving Machine for shaving plastic plates, electrotypes, stereotypes and wood blocks.

Mohr Measure Control

MOHR Lino-Saw Co. has issued a bulletin describing the Mohr Measure Control which consists of three basic elements of the Mohr Saw for linecasting machines—the dial, left-hand vise jaw and assembler units. Emphasized in the six page, two-color bulletin are the uses of the Measure Control in the changeover to new column widths. Entitled *How Can We Set Odd-*

(*Continued on Page 20*)

Announcing The NEW WESEL FLAT SHAVER

SHAVES EVERYTHING INCLUDING OVERHEAD!

Shaves Plastic, Metal and Wood To Tolerances of ± .001"

THE FIRST DESIGNED EXPRESSLY FOR PLASTICS

★ Provides Quicker More Accurate Smoother Shaving

★ Roughs and Finishes Up to 1/16" in One Operation

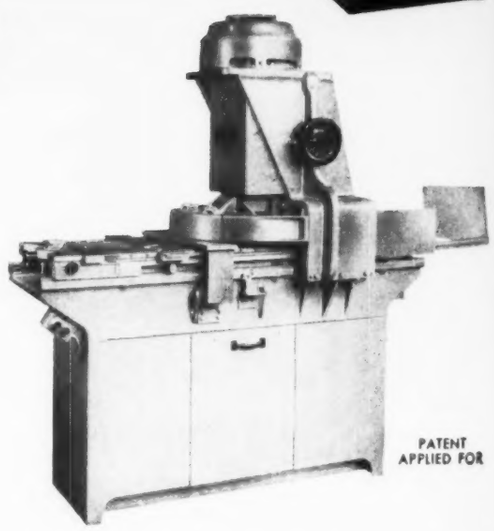
★ Uses Inexpensive Carbide Cutters

★ Cutters Can Be Sharpened in your Plant

★ Down Time is Almost Negligible

Fulfills the exacting requirements of plastic platemakers, electrotypers, stereotypers and engravers. Shaver produces plates with parallel printing surfaces and backs. The vertical milling head insures smoother ridge-free backs than are attainable by any other cutting method. Maximum plate size 21" x 30". Get complete information today on the shaver that increases efficiency and reduces overhead.

Write For Literature and Prices Today

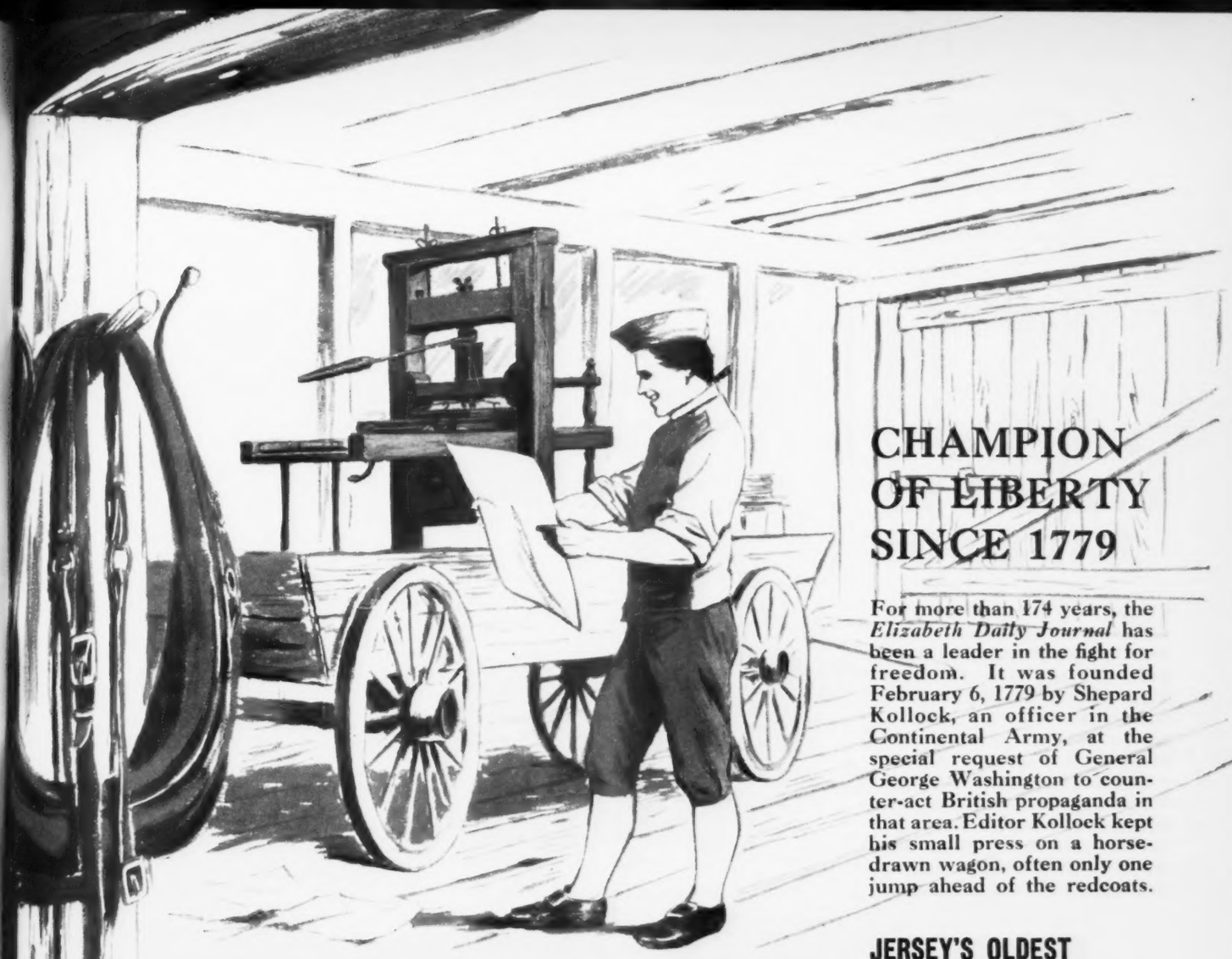


PATENT APPLIED FOR

WESEL MANUFACTURING CO.

PLANT AND SALES OFFICE

1141 N. Washington Ave., Scranton 9, Pa.



CHAMPION OF LIBERTY SINCE 1779

For more than 174 years, the *Elizabeth Daily Journal* has been a leader in the fight for freedom. It was founded February 6, 1779 by Shepard Kollock, an officer in the Continental Army, at the special request of General George Washington to counter-act British propaganda in that area. Editor Kollock kept his small press on a horse-drawn wagon, often only one jump ahead of the redcoats.

JERSEY'S OLDEST NEWSPAPER DEDICATES GOSS PRESS TO SOLDIER-FOUNDER

Installed as part of a $750,000 expansion and improvement program, this new Goss Headliner has been named the SHEPARD KOLLOCK PRESS in memory of the soldier-editor who founded the *Daily Journal*. The press has many ultra-modern features including Tension Plate Lock-up, Colortrol, and facilities for four-color printing!

Robert C. Crane, editor and publisher of the **Elizabeth Daily Journal**, and Wilson MacMullen, assistant press foreman, start new Goss Headliner.

Elizabeth Daily Journal
Installs New Headliner Units

When their new Goss press recently went on edition, Editor-Publisher Robert C. Crane rededicated himself and the *Daily Journal* "with renewed vigor." He added that "we are free from worry as to any technical failures beclouding the immediate future." Four participating clergymen hailed the "opportunity (that) printing equipment offers for the service of truth and mankind."

it's **GOSS** *again*

THE GOSS PRINTING PRESS COMPANY
1535 S. PAULINA ST., CHICAGO 8, ILL.
Goss Printing Press Co. Ltd., Preston, England

1 OPERATOR DOES THE WORK OF 2

with a

(Stagger the stitches if desired with an optional built-in accessory attachment.)

Rosback AUTO-STITCHER

Patented Oct. 28, 1952

With a Rosback Auto-Stitcher you can enjoy the faster production and all the other advantages of automatic stitching and do so at *a 50% saving in labor costs* as compared to ordinary hand stitching.

The Auto-Stitcher saddle-stitches folded sizes up to 10″ x 14″, any number of pages from two single 4-page sheets or single signatures up to booklets 3/16″ in thickness (3/8″ folded). Machine is equipped with two standard quarter-inch stitcher heads, to place either one or two stitches using round wire from No. 25 to No. 30.

Operator gathers signatures and places the collated booklets on the Auto-Stitcher saddle. Booklets are automatically conveyed to the stitcher heads and one or two stitches, as required, are automatically placed. Stitched booklets are then automatically ejected into an adjustable stacker delivery (or onto a continuous belt delivery as mentioned at right.)

Other outstanding advantages include variable speed control that enables operator to stitch at any desired speed up to 68 booklets per minute; adjustable height of collating table to suit convenience of operator; foot control treadle for stopping and starting at any point of the stitching cycle; automatic brake to stop machine instantly when operator removes her toe from the treadle; and an accessory attachment, built into the machine at small extra cost, for staggering the stitches.

If you are looking for important ways to cut costs, or for new ways to make substantial extra profits on a small investment, ask your Rosback Dealer for full details of the Auto-Stitcher. Or write us for complete descriptive bulletin.

Continuous Belt Delivery (patent applied for) now also available for the Auto-Stitcher as optional extra equipment at extra cost. Write for special bulletin.

If you now own an Auto-Stitcher, ask your Rosback Dealer how you can add the new Continuous Belt Delivery to your present machine.

F. P. ROSBACK COMPANY • Benton Harbor, Mich.

WORLD'S LARGEST MANUFACTURERS OF PERFORATORS, GANG STITCHERS AND PAPER PUNCHING MACHINES

Equipment & Supplies

(Continued from Page 18)

Measures for Different Newsprint Widths?, it is available to those interested by mentioning PEE No. 584 in your request.

Telescopic Tilting Fork Stacker Truck

CLARK Equipment Co. reports four models of the Powrworker Telescopic Tilting Fork Stacker in capacities of 1500 lbs., 2000 lbs., 2500 lbs. and 3000 lbs. Sponsor states all models are rated at 24 in. center line of load.

Four lifting capacities of this Powrworker Telescopic Tilting Fork Stacker have been announced by Clark Equipment Co.

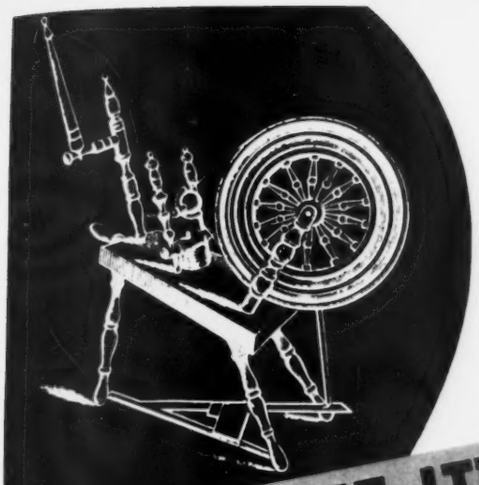
Two standard models are available in each capacity which are equipped with the Hi-Lo Stack.

One model has an 83 in. overall height with 64 in. of free lift and 130 in. maximum lift. The other, designed for highway truck loading, has a 68 in. overall height with 49 in. free lift and a maximum lift of 100 in. The Powrworker Stacker is claimed by Clark to be designed for operation in narrow aisles and over low capacity floors. Lifting speeds vary from 14 to 21 f.p.m., depending upon load. Further information may be obtained by referring to PEE No. 543 in your request.

Airtube Systems Booklet

THE complete coverage of installations and uses of Lamson Airtube systems in different industries, including printing and publishing, is presented in the colorful 52 page booklet entitled *On Target* issued by the Lamson Corporation. Numerous illustrations are used to show how such systems are used to send proofs, copy, orders, etc., via an air tube from one department to another in a printing plant. The booklet includes information on carrier types and dimensions as well as basic operation of the system. Case histories of several industrial and commercial firms which have installed Airtube systems are given. A technical data section provides details on the component parts of the system. Power units which operate the system are also

(Continued on Page 24)



There's a Place for Antiques

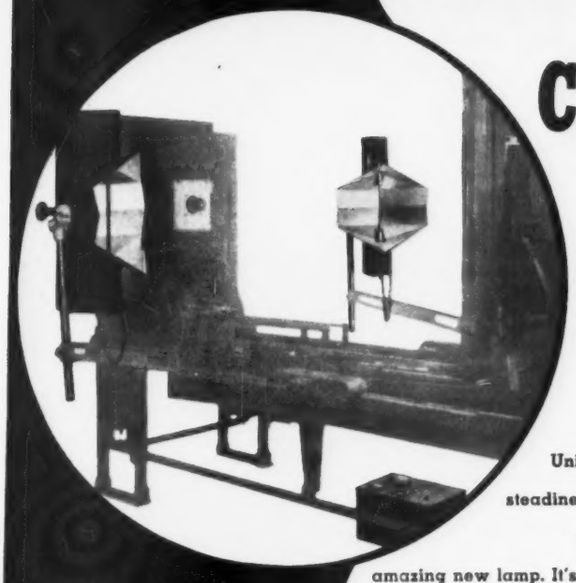
BUT IT'S NOT IN YOUR SHOP!

It's about time that you parted company with those old lamps, and availed yourself of the many advantages afforded by the new, low-cost

GRAFARC CHALLENGER

FULLY AUTOMATIC HIGH INTENSITY

CAMERA ARC LAMP



You'll be agreeably surprised how much money you can save — how much better work can be done — with this vertical trim lamp which burns at 75 amperes and 23 volts at the arc.

It's really automatic — the arc current controls the carbon feed so that the illumination and color temperature are constant. Here is true advancement in arc lamp design.

Uniform illumination is provided on work of any size, with extreme steadiness of light volume. The Strong Grafarc time-proven method of compensation for line voltage variations has been incorporated in this amazing new lamp. It's easy to see why such wide approval has been accorded the Challenger.

It is light in weight, and readily mounted on the lamp support arms of any camera. Adapters are available to fit all makes of cameras. The Challenger can also be used as a printing lamp.

Better abandon those old lamps of yours now. There are modern Strong Grafarc lamps designed for all photo-mechanical processes — printing lamps, camera lamps, photo-composing lamps, and overhead printing lamps.

USE COUPON NOW TO OBTAIN COMPLETE LITERATURE.

THE STRONG ELECTRIC CORPORATION
307 City Park Avenue • Toledo 2, Ohio

Please send free literature on the complete line of Strong Grafarc Lamps.

NAME _____

FIRM _____

STREET _____

CITY & STATE _____

NAME OF SUPPLIER _____

THE CUTLER-HAMMER C

unit type newspaper press drives–
SIMPLE, FLEXIBLE, DEPENDABLE

In the Cutler-Hammer Control System for unit drives, each press unit with its own motor has its own motor control. It is a simple matter to cut press units in and out. Troubles such as changing load adjusting resistor switches, equalizing load among motors, circulating currents and excessive current peaks are at an end.

Each unit of Cutler-Hammer Motor Control is built up of simple, familiar, rugged industrial type control components. The kind any electrical man understands and can service. All control equipment can be installed in a separate room. Installation is simple and economical.

The Cutler-Hammer System utilizes simple, sturdy wound rotor a.c. unit motors. . . the dependable type with ample overload capacity for operating press at full speed in event of a motor failure. Also ample capacity for driving additional color decks. These motors are easily installed, aligned and serviced.

A gearhead motor performs inching and threading. Unit driving motors therefore are not energized during these operations.

A Cutler-Hammer cam drum accelerating device with 82 speed points accelerates motors and press units automatically and smoothly to any operating speed.

Dynamic braking eliminates the usual motor with built-in brakes. These are some of the features that recommend the Cutler-Hammer Unit Type Control System to any executive looking for maximum production at minimum cost and trouble. CUTLER-HAMMER, Inc., 1460 St. Paul Ave., Milwaukee 1, Wis.

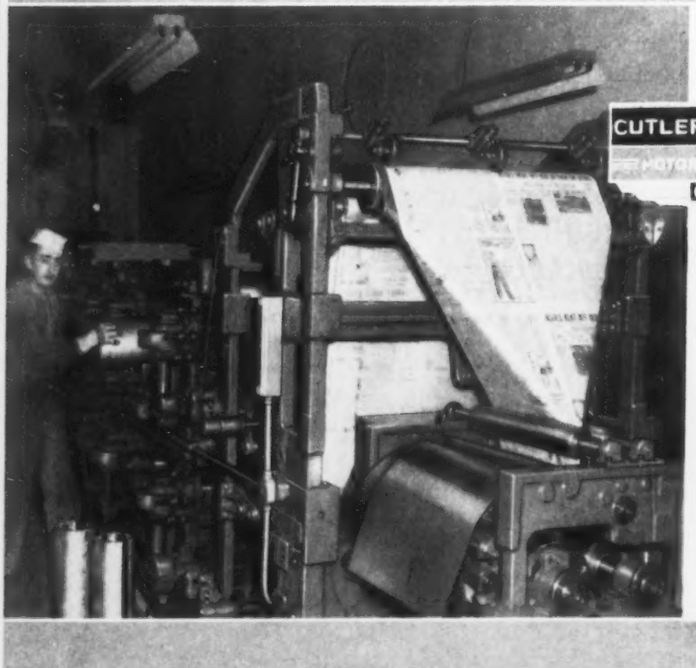
Cutler-Hammer Cylinder Brakes

Stop presses safely in approximately 3 seconds, completely relieving gearing of excessive forces and harmful shocks. Each brake individually adjustable yet automatically coordinated with other brakes.

CUTLER-HAMMER
MOTOR CONTROL
C-H

Cutler-Hammer Newspaper Conveyors

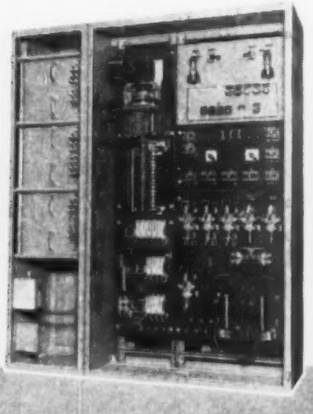
Used in practically every conveyor-equipped plant in North America. Standard Duty handles up to pages at any speed up to 60,000 I.P.H. Duty handles up to 96 pages at any speed to 60,000 I.P.H.



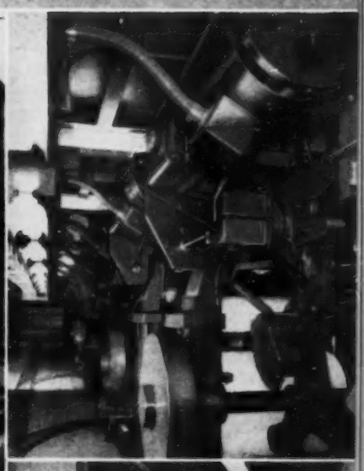
Cutler-Hammer Electronic Control for single motor drive on Goss Dek-A-Tube press in plant of

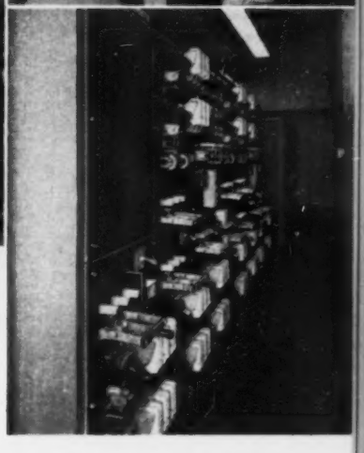
MADISONVILLE, KY., MESSENGER

"The whole setup is running smoothly, and we are looking forward to many years of satisfactory operation," says Edgar Arnold Jr., Assistant Editor.



CONTROL SYSTEM for



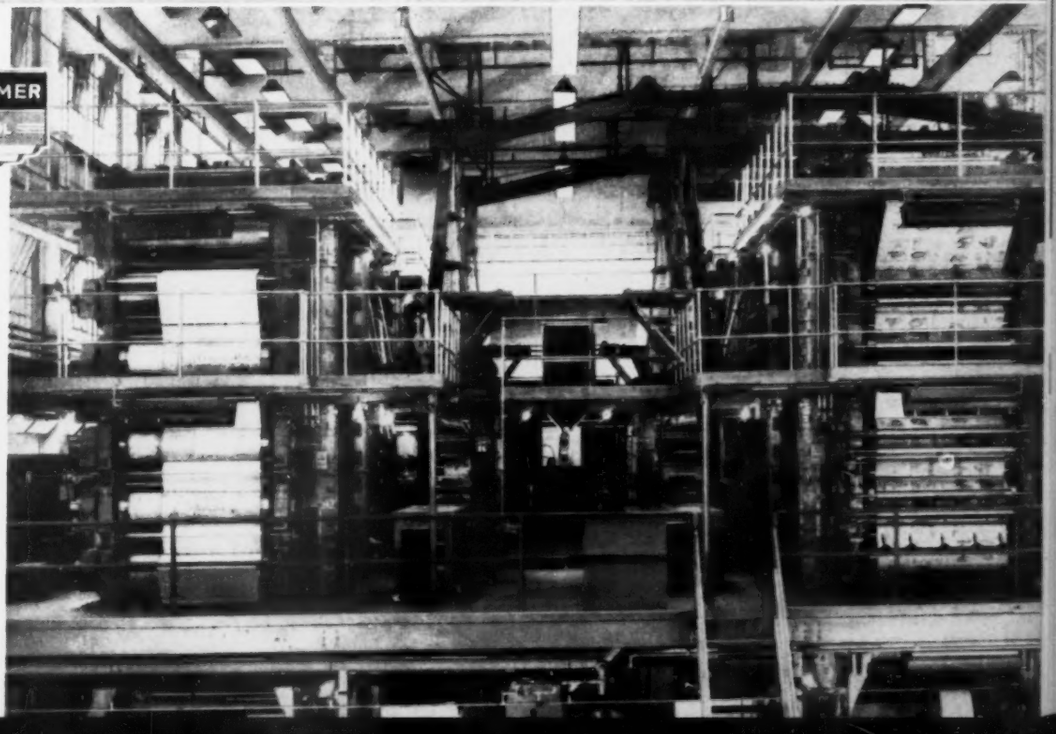


Cutler-Hammer Control System for Unit Drives

WILKES-BARRE, PA., RECORD, TIMES-LEADER, NEWS

This eight-unit two folder Hoe color convertible newspaper press at left, is equipped with unit drive and Cutler-Hammer unit type control. Above, the C-H Control installed in separate room, and a close-up of a drive unit.

CUTLER-HAMMER
MOTOR CONTROL
C-H



Cutler-Hammer Control for
2 Motor Drives on

MULTI-MILLION RUN HEARST

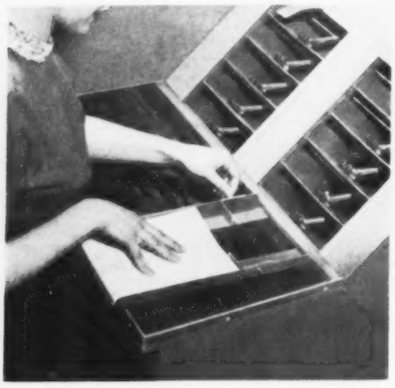
4-color Weeklies

"Running very satisfactorily" are these two 24-cylinder color presses equipped with Cutler-Hammer Controlled Drives in the Color Plant of the American Weekly at San Francisco. In addition there are four 24-cylinder presses identical with the above, in the American Weekly plant in Chicago. Approximately 10 Million copies of the American Weekly and 8 ½ Million copies of the Comic Puck Weekly are printed each week.

Equipment & Supplies

(Continued from Page 20)

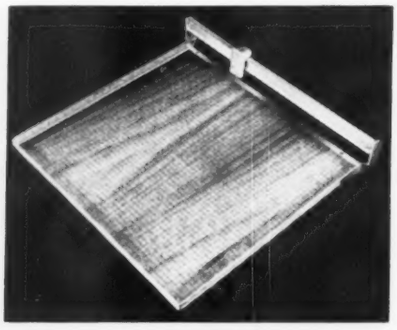
described. The booklet, which measures 8½ in. by 11 in., is printed in yellow and black. Copies of *On Target* are available by mentioning PEE No. 547 in your request.



Adjustable Tray for Collating — An adjustable tray designed for use with any hand collator and which permits the collating of various sized sheets into sets, has been reported by Thomas Collators, Inc. The tray can be adjusted to accommodate sheets from 3 in. by 8 in. to 19 in. by 24 in. For further information, please mention PEE No. 588 in your request.

Hand Paper Cutter

A HAND paper cutter, known as the Rolcut Trim-Board, has many uses in the Graphic Arts, according to Zeus, Incorporated. Applications include cutting proofs, paper and acetate, preparing dummies, making ready for press, planning bleed and trim sizes for production cutting and others.



The Rolcut cutter features a self-sharpening rotating wheel blade which is enclosed in a protective cast aluminum carriage. Carriage assembly travels on a solid I-beam track. Sponsor states its light-weight enables it to be carried from one location to another within the plant. The ¾ in. baseboard is rule in ½ in. grid lines which are aligned with etched metal rule and paper stop.

Sizes available include a 12 in. by 12 in. and 24 in. by 24 in. top surface. Please mention PEE No. 589 when requesting more details.

High-Gloss Flexographic Ink For Cellophane

A HIGH-GLOSS flexographic (formerly known as aniline) ink for printing on the surface or face of Cellophane has been introduced by Bensing Bros. & Deeney. Called Excellobrite, sponsor claims the ink has a glossy finish that matches the film itself. It is recommended for use on all makes of moisture-proof heat-sealing, moisture-proof anchor-coated and semi-moisture-proof anchor-coated Cellophane whenever gloss printing is desired. Reverse printing is impractical, reports BBD.

Claims made by the sponsor include that the ink will not block up to 130 deg. F. and 90 per cent humidity. Good printability and adhesion is also claimed. It is described as a fast drying 100 per cent pigmented ink that does not bleed in film plasticizers and, because of its tinctorial strength and thin body, affords clean and sharp reproduction.

Excellobrite inks are available in a full range of standard colors. BBD recommends that where maximum gloss effects are desired, it should be used for over-

(Continued on Page 67)

"Punctuality is one thing we are paying you for."

—protests the indignant store manager. "When you cut down the reading time of your Home Edition, we should chop a good big slice from our check."

Alert newspaper advertisers know when papers are delivered late, both by direct check and by sluggish response to their ads . . . Now the paper's contact man assures this one that mat experiments have stopped and that the paper is back on Certifieds.

For dependable stereotyping, rely on Certified Mats

Certified DRY MATS

CERTIFIED DRY MAT CORPORATION, 9 Rockefeller Plaza, Dept. M, New York 20, N. Y.

THE WESTERN

Honeycombed Plate Cylinder

gives you a better, stronger and more versatile foundation for your plates . . . which results in better printing and prevents plate cracking.

The honeycombed surface is rigid . . . gives your plates the support they need underneath the entire plate surface. There are no weak sections to allow plate cracking or press smashing.

The thousands of holes in each cylinder allow you to hang plates closer together . . . gives you complete versatility in placing the plates right where you want them . . . will accommodate very small plates.

These cylinders are machined for using BLATCHFORD improved hook, only.

Manufactured by

Western Printing Machinery Co.

Manufacturers of Special Rotary Presses

3rd and 4th Color Units for 2-color Miehle Presses

3519 N. SPAULDING AVE. CHICAGO 18, ILLINOIS

TIP TO LINECASTING MACHINISTS

THE STAR *SELF ACTUATING* FEEDER Cures That Trouble!

(Also for Elrod, Ludlow and Monotype Machines)

With the limited wattage in the standard Linotype or Intertype electric pot only a limited amount of metal can be melted in a given time. The feeder must feed only enough metal at one time to be melted by the available heat units before the lowered level calls for more cold pig. If a large slug is being cast, the ordinary feeder is feeding too much pig at one time to be melted before the lowered pot level calls for more metal.

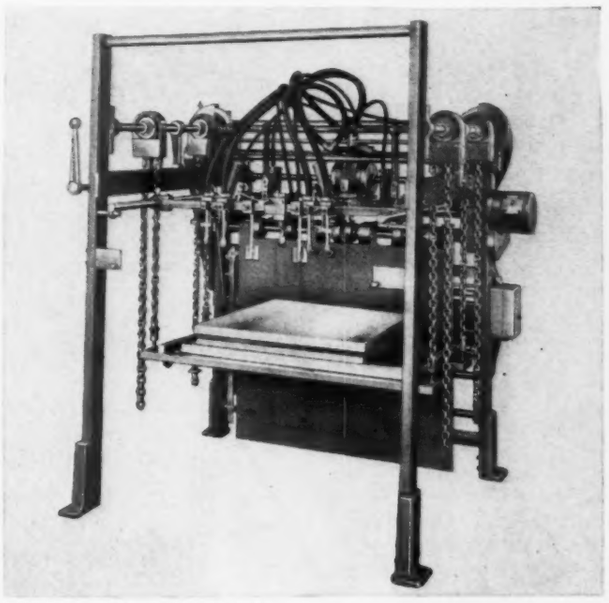
Not so with the **STAR FEEDER** . . . it feeds the cold pig in smaller doses so that the available wattage can melt it before the cycle is completed. It does not depend on any lever of the machine for actuation. It is controlled only by float and brake.

Send for the detailed description

PRECISION
TRADE ★ MARK

LINOTYPE PARTS COMPANY
INCORPORATED
Factory and Main Office
SOUTH HACKENSACK, N. J.
Branch Office: 1327 BROADWAY, KANSAS CITY 6, MO.
CHICAGO • MINNEAPOLIS • DENVER • LOS ANGELES • BOSTON

Dexter Continuous Reloading Metal Sheet Feeding Eliminates Loading Time Losses



The Dexter Metal Sheet Feeder

The Dexter Metal Sheet Feeder automatically feeds sheets to press, coater, slitter or other machine. It handles stock from 38 to 24 gauge, 36 x 44″ to 14 x 16″, loads up to 6,000 lbs.

The feeder automatically separates and picks up metal sheets from pile and advances them to registering or feeding-in point.

Reloading mechanism eliminates need of stops to reload.

Should two sheets adhere, reject mechanism diverts them to reject tray without stopping machine or slowing down production.

Fewer stops and less tripping make for work of more uniform quality.

There is no marking or scratching of sheets.

Stock may be trucked into feeder by either electric or hand lift trucks or by means of floor load conveyors.

Special feeders can be supplied to handle up to 16 gauge, 48 x 144″ and 30,000 lbs. load.

The services of our engineers and organization are available, without obligation to you, for consultation in development of automatic feeding of various types of machines used in your plant for handling tin plate, black iron or other metals in sheets.

Dexter Folder Company
General Sales Offices
330 West 42nd Street, New York 36, N. Y.
Boston, Philadelphia, Washington, Cleveland, Chicago, St. Louis
Agents in principal foreign countries

Uncle Mat Says:

a a A a a a A a A a a a

"THE GREATER THE VARIETY OF TYPE FACES USED, THE GREATER THE VALUE OF MATRIX CONTRAST SERVICE"

In display composition, with its larger assortment of type faces and sorts, the use of Matrix Contrast Colors will give you great savings in linecasting operation . . . a bonus that newspapers and job shops with a variety of type faces receive when adopting Matrix Contrast Service.

When the reference marks are treated in bright contrasting colors such as red, green, yellow, orange, or white, the clear-cut characters show any variation in colors immediately. The occurrence of wrong fonts is eliminated and pi mats are selected with assurance. With the squint taken out of his work, the operator delivers a greater quantity and a better quality of composition.

Take it from your old Uncle Mat...

not one but five persons are pleased when Matrix Contrast Service is installed . . . the operator, the machinist, the employer, the reader, and the advertiser.

Copyright 1953, Matrix Contrast Corporation

MATRIX CONTRAST SERVICE *MATRIX CONTRAST CORPORATION*

154 West 14th Street, New York 11, N. Y.
326 W. Madison Street, Chicago 6, Ill.
1105 Trenton Street, Los Angeles 15, Calif.

European Agents: Funditor, Ltd., 3 Woodbridge Street, Clerkenwell Green, London, E.C.1.

PRINTING
EQUIPMENT
Engineer
April 1953

Saw Blades—

What You Should Know About Them

By ROBERT A. BLACKBURN*

*President, Automatic Saw Sharpening Co., Indianapolis, Ind.

THE problems involved in sawing line-composing machine slugs, rules, leads, stereotype casts and other materials used in the printing plant are different from those in any other field. It is more important to minimize friction than when cutting wood or other materials. Friction in sawing type metals tends to heat and melt the metal being sawed and causes it to adhere to the sides of the blade or between the teeth, thus requiring more frequent reconditioning.

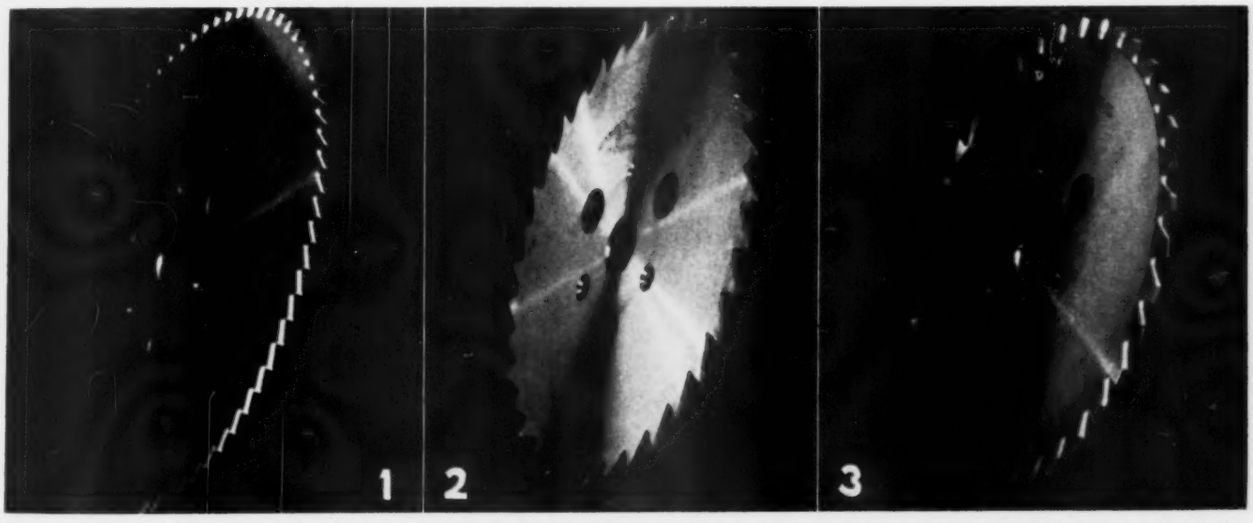
To secure free cutting and minimize heat and friction, the body of the blade must clear the work being cut. This clearance is accomplished by extending each tooth of the blade from 0.010 in. to 0.015 in. beyond the sides so that the total cut is from 0.020 in. to 0.030 in. wider than the blade thickness, the amount depending upon the work for which the blade is to be used.

There are four different ways of securing this clearance. This is called tooth fitting. It is important to know how this is done because it is the first factor in selecting the correct blade for a specific job.

Saw Pointers

To secure good service from blades, they should be kept up to efficient diameter. Each time a standard blade is reconditioned, 1/16 in. of its diameter is lost. Each sharpening gradually reduces the rim speed of the blade and its impact and efficiency in cutting.

For example, the rim speed of a 6 in. blade turning 3600 r.p.m. is about a mile a minute (5680 ft.), but when the blade is 4 in. diam., it travels only 3800 ft. a minute (2/3 mile).



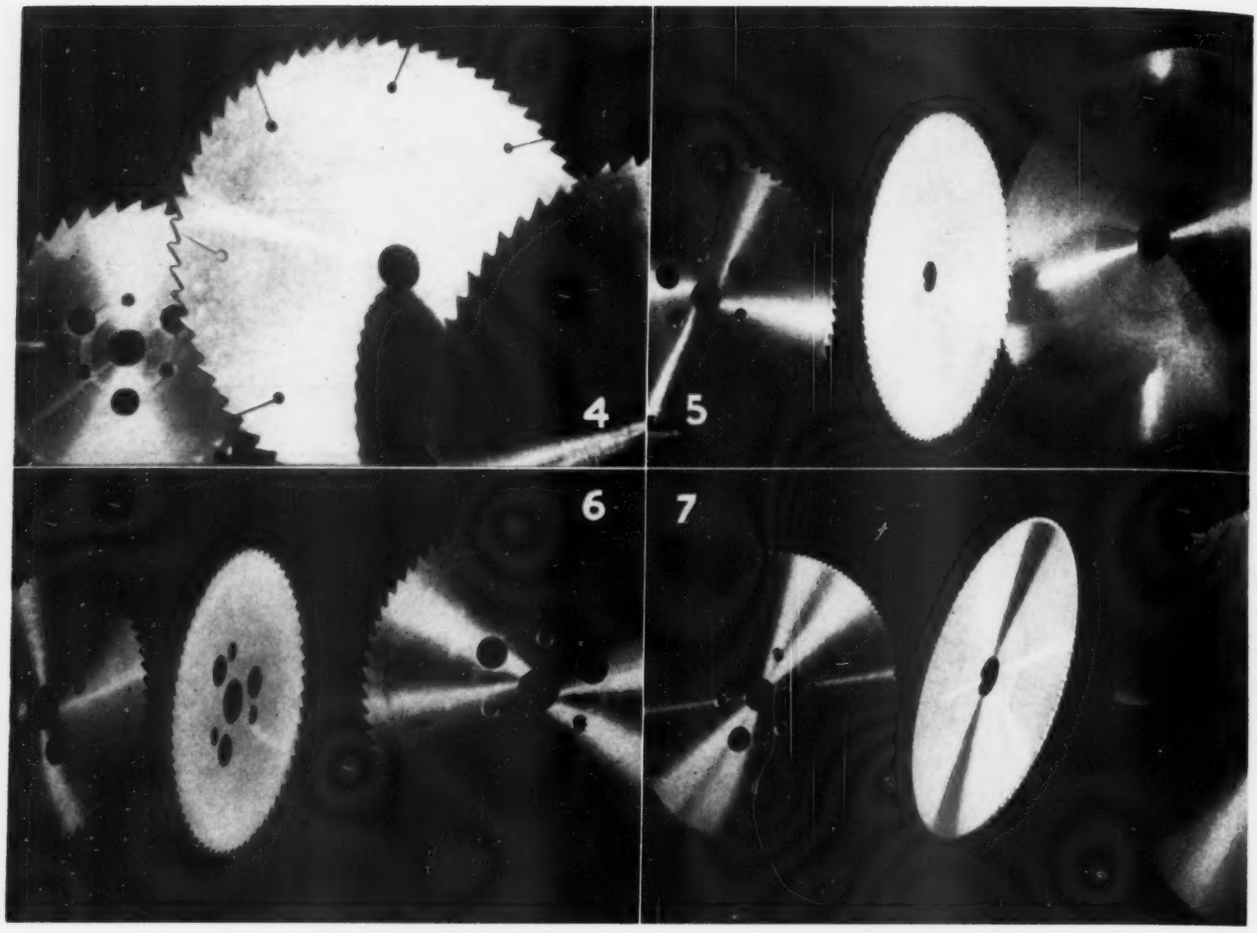
Various Types of Graphic Arts Industry Saw Blades

1.—The Swaged Tooth is secured by forcing each side of each tooth from 0.010 in. to 0.015 in. beyond the blade body. This provides two cutting edges on each tooth, each of which do an equal amount of work. A swaged tooth blade requires about twice as much power to turn as other types of blades with an equal number of teeth. Also, it has twice as many cutting edges.

2.—Clearance in a set tooth blade is provided by forcing every alternate tooth right and left beyond the blade body, each tooth projecting about 0.010 in. to 0.015 in. on one side only. There are only one-half as many cutting edges on a set tooth blade and less power is required to turn it than a swaged blade of an equal number of teeth. Power available on machine is sometimes a factor in selecting the tooth fitting of a blade.

3.—Formed Teeth. Clearance in this blade is ground into the teeth at the time of manufacture. These blades cannot be set or swaged because they are usually too hard and are not designed for tooth reforming. Blades of this type are called Multi-Purpose, Universal and All-Purpose. This blade is sharpened by grinding the front of the teeth only. The tops should never be altered because by doing so the clearance would be destroyed.

Straight Tooth, Hollow or Taper Ground Saws. The fourth and last way of providing clearance is by grinding the body of the saw on both sides with a concave surface so that body is thinner than the tooth width. Taper ground saws are made by flat grinding the body so that the blade is progressively thinner beginning at the rim and extending to the hole or collar. These blades give a smooth cut but do not have quick clearance. Work cannot be forced in to this type of blade as they generate more heat.



Size of Teeth Is Important

In selecting the best blade for a specific job, there is one more factor besides tooth fitting and that is size of the teeth. Printing saw tooth size can be classified as small, medium and large.

4.—Blades for Type-High Cast. For this purpose larged toothed blades with either set or swaged teeth are best. By large toothed, we mean for example 32 to 38 teeth on a 6 in. to 7 in. diam. blade, 44 to 64 teeth on an 8 in. diam. blade, or 64 to 90 teeth on a 10 in. diam. blade.

Smaller tooth blades are not satisfactory because they tend to heat up the cast and lead up or solder with metal. Even a free cutting blade generates heat at the point of cutting.

The large tooth blades run cooler because there are fewer cutting points to contact metal, and they have a large gullet to clear the chips easier. Sawing of type-high stereotype casts is different from sawing leads, slugs, etc., because this work is done through a solid piece.

5.—Blades for Shell Cast Stereotypes should have medium size set teeth. A 10 in. blade with 160 teeth, and 6 in. or 7 in. blades with 70 teeth are best for this purpose.

6.—Slug and Lead Blades. For sawing slugs, leads, rules, a medium sized tooth, 64 to 72 swaged teeth on a 6 in. to 7 in. diam. blade is best. Sawing these materials presents fewer problems. Practically any blade is satisfactory but the swaged tooth blade gives a smoother cut. Formed tooth blades, that is, the Multi-purpose, etc., are also good for this purpose.

7.—Electrotype and Photoengravers' Blades. For sawing zinc, electros, wood-mounted cuts, light brass and copper, the blade should be fitted with set teeth, about 120, on a 6 in. diam. blade, 140 on a 7 in. blade and 220 on a 10 in. diam. blade. Blades with formed teeth are also satisfactory. This is the one place where hollow or taper ground blades, with straight teeth and sometimes set teeth, can be used to advantage.

This is the same as reducing the r.p.m. of the saw, produces friction and a pushing action instead of cutting and shearing. Blades become dull more quickly and sharpening costs rise. (Formed tooth blades do not lose diameter as only the face of teeth are ground).

The saw machine arbor should be checked occasionally for loss of r.p.m. caused by low voltage, overloaded circuits, belt slippage, etc.

Type metal should be examined regularly for presence of hard metals, abrasive materials, or other foreign substances which would dull blades prematurely.

Type-high stereotype casts, if possible, should be cool when sawed. Stereotype blades should be wiped daily with an oily cloth. This prevents leading and prolongs blade life between sharpenings.

Usually a whine or ringing of a saw blade is caused by vibrations set up by stress or strain in the blade steel. Of 100 blades made from the same sheet of steel one may develop this condition. This usually can be corrected by disturbing the vibrations, by using any soft material, such as oiled felt or cotton wicks, which exerts only a slight pressure on the side of the blade. Some machines are equipped with oiling devices which also correct the noisy blade condition.

Whistling is generally more frequent in the larger tooth blades because they create greater air disturbance. Whistling can be aggravated by uneven set or swage of the teeth.

A properly made saw blade is a fine tool and should be treated as such. The very best saw machine is no better than the blade. To secure best results and long blade life it is imperative that the operator treat his equipment accordingly. Work should never be forced, jammed or fed too fast into the blade.

It is fundamental that trouble-free sawing is dependent upon selecting the correct blades for the job to be done. The right blade, given proper care, will solve most Graphic Arts sawing problems.

Special Blades

The blades discussed in the illustrations 1 to 7 inclusive are the standard blades of the industry. There are a num-

ber of special blades. In this class might be included the formed tooth blade, which is good for cutting brass and copper. It is also satisfactory for cutting plastics. An advantage of this blade is that it can be sharpened on attachments furnished with some saw machines.

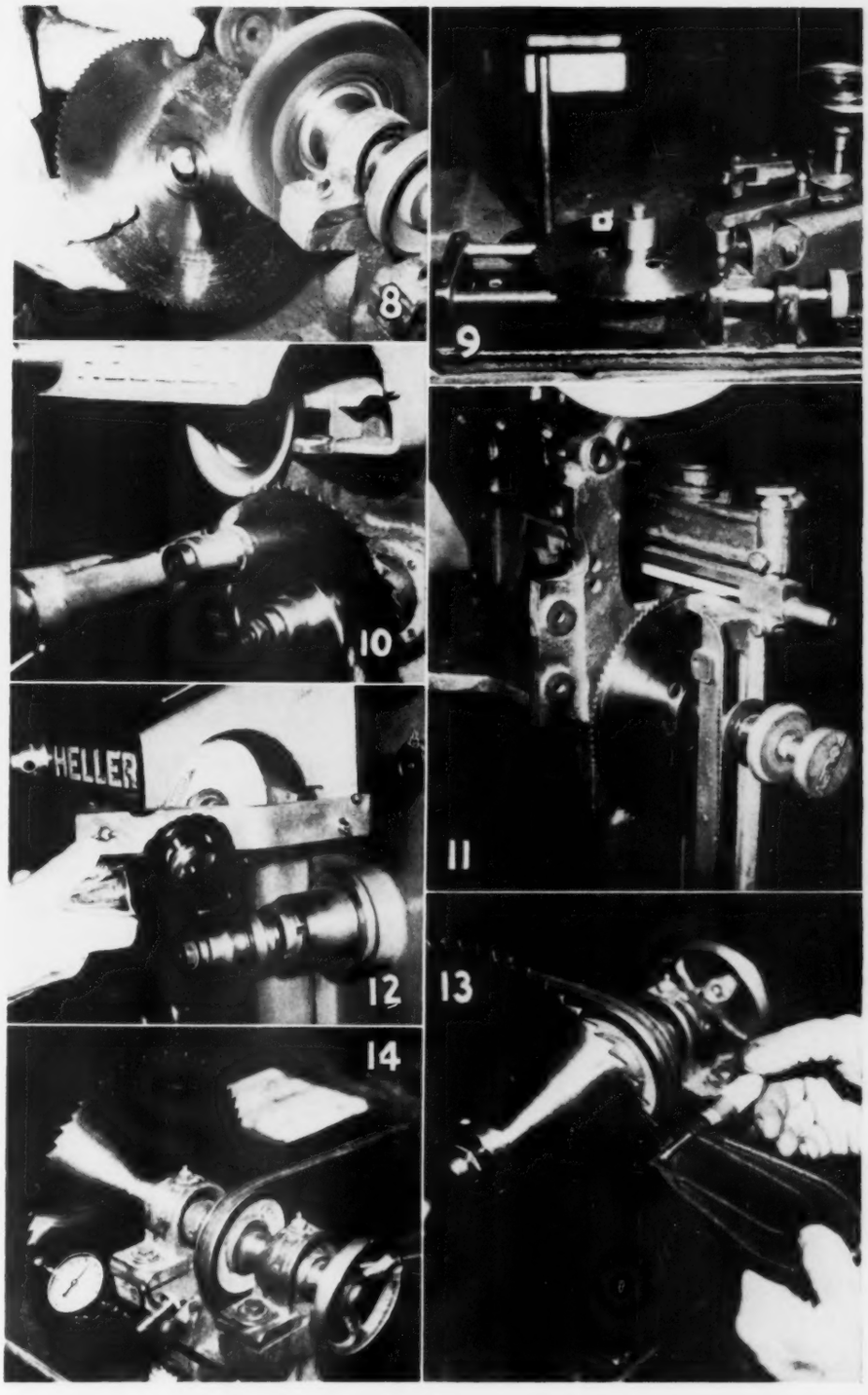
Another type not in general use is the carbide tipped blade which is made by brazing tungsten carbide to the tips of the saw teeth. This material is extremely hard. However, it is fairly easily fractured by shock. As a rule the softer the material being sawed the better is performance of the blade. Plastics, paper, and many other materials of this type can be sawed most economically. Life between sharpenings sometimes is 10 to 12 times that of a steel alloy saw. At present the cost of manufacturing and sharpening carbide saws is extremely high. Also all manufacturing problems including fastening the tips have not been solved.

Other special saws used in the industry are, stereotype plate cutters, sometimes called tail cutters and saw blade for the Mohr Saw attachment used on line-composing machines. Each of these tools requires a finer finish on the cutting surfaces to eliminate leading. The Mohr Saw blade is hollow ground, is supplied with mirror finish, and is about $3\frac{1}{2}$ in. diam. with 76 teeth.

Of necessity, this discussion of blades is of a general character. Any specific problems should be referred to a recognized authority.

G-E Reorganization

The Small and Medium Motor Dept. of the General Electric Co. has been discontinued and its operation has been decentralized into three product organizations. The announcement was made by J. M. Crawford, Vice Pres. and General Mgr., G-E Motor and Generator Div. The new departments will be known as the Medium Induction Motor Dept., Direct Current Motor and Generator Planning Study, and Synchronous and Specialty Motor and Generator Dept. Headquarters for the first two organizations will be at Schenectady, N. Y. The latter department will be located at the Lynn (Mass.) River Works. A Divisional Marketing Dept. was also established and will maintain offices in Schenectady.



Sharpening Should Be Called Reconditioning

When dull or used blades are received by the printing saw specialist, the sharpening service is actually a re-manufacturing procedure, involving several important precision operations. They are explained as follows:

8.—Cleaning to remove metal, rust, or any other foreign material from the blade, and then polishing to produce a smooth friction-free surface is the first operation. Retoothing to correct hand grinding or filing is done to restore broken teeth.

9.—Automatic Machine Swaging or Setting. This is a precision operation to provide uniform clearance on all teeth.

10.—Machine Sharpening automatically produces a blade in perfect round so that all teeth carry the load equally. The quality of the finish is very important, the better the finish the less friction, and the better and longer the blade cuts. Blades are either ground or filed, depending on hardness. In this illustration a grinder is at work. The trend is to harder blades which must be ground.

11.—In this illustration a saw blade is being sharpened by a saw filing machine.

12.—At this point the blade is inspected on the machine under magnification for sharpness and quality of finish.

13.—The next step is to side-dress the blade to secure the correct clearance within plus or minus 0.002 in. This operation is checked with micrometers for correct clearance, to be sure the teeth extend the correct distance beyond the body.

14.—Inspection by dial indicator for runout or out of round. This is the important final check to tolerances of 0.005 in.

Research Is Answer To Bottleneck in Silk Screen Work

THE screen process printing industry has engaged in a systematic approach to its production problems through the activity of the Research Committee of the Screen Process Printing Assoc., International, reports Executive Secy. Daniel P. Novak of the association.

Meeting in Cleveland recently, the committee identified ink drying as the main bottleneck of silk screen production.

The meeting program featured detailed descriptions of three drying installations that had proved themselves in practical shop operations. The papers were prepared by Milton Grant (President of the Silk Screen Process Co., Cleveland), John Key (President of Admiral Screenprint Corp., Chicago), and Jack Simmons (President of the Chromart Co., Philadelphia).

The Committee Chairman, Victor Strauss of Pied Piper Press, New York, N. Y., opened the meeting with a summary of the drying problem. In succession, he introduced the three scheduled speakers.

Milton Grant was the first to present his installation. In the basic concept of its design is incorporated the following five points: (1) The unit is suitable for running more than one job at the same time; (2) The unit takes little floor space. It is, of necessity, of overhead design; (3) Its dimensioning was planned to suit standard paper and cardboard sizes up to a width of 48 in.; (4) In the unit is incorporated an adaptability of heating elements for various types of jobs requiring individual controls, and (5) Since the unit is adaptable for both hand and machine production it is equipped with variable speed control.

The next speaker was the past president of the Association, John Key, who read a paper entitled *A Report on a Drying Conveyor as Installed at Admiral Screenprint Corp., Chicago*. Key covered 14 separate points in his specifications. Even though the output of a high speed press is being dried without loss of quality, Mr. Key is not satisfied. He is looking to the future and wants equipment that will be able to produce the same volume of work as will similarly priced equipment in other Graphic Arts methods. He said that in view of forthcoming press developments, approaches to creating adequate drying equipment must be taken co-laterally with the advances being made in press building, ink manufacture, heating elements and air movement techniques.

Jack Simmons approached the drying problem in a fundamentally different manner. Whereas both Milton Grant and John Key relied on heat and air applications for drying, Mr. Simmons wished to avoid both as much as possible. He felt it would be wiser to concentrate on some mechanical means to take the work away from the press or table quickly and give the prints the amount of time to dry with the inks that we now have at hand."

He overcomes this difficulty in a simple and inexpensive manner. Simmons stated "Many of us have forgotten that our sheets have another dimension—that of thickness. Seldom are our sheets more than ¼ in. thick and more often only ⅛ in. and 1/16 in. or less. Then why not stand them on edge wherein 1 in. between sheets might be ample. This system changes our arithmetic considerably. Now we can place 12 sheets to the foot; 20 min. of printing production from a table (100 cards or sheets) takes up only 8 ft. or 9 ft. for racking. A good press will fill only 42 ft. of conveyor."

Mr. Strauss summarized the meeting by indicating that for complete coverage of all component elements the co-operation of paper and board manufacturers is required. He emphasized the importance of the study of stock and mentioned the eventual possible development of a specific paper designed for silk screen just as is available today for letterpress and offset.

The committee will send a questionnaire on ink drying to the membership.

Cutler-Hammer Move

Cutler-Hammer, Inc., has announced that manufacturing operations of its newspaper conveyors have been transferred to 315 N. 12th St., Milwaukee, Wis., from its New York plant. The technical staff of the newspaper conveyor line was also transferred to Milwaukee.

Participants in recent Cleveland Silk Screen Meeting—Research is Felt to be Answer to Production Bottleneck.

Seated: J. E. Nestell (Fluorescent Adv. Service, Inc., New York, N. Y.), Brenton E. Brown (Brown & Gage, Inc., Cleveland), Dave Souder (Screen Process, Cincinnati), Franz Weiss (Poster Products, Inc., Chicago), Dan Novak (SPPA, Intl. Executive Secy.), R. E. Powers (stenotypist), Homer Winkler (Battelle Memorial Institute, Columbus, O.), Victor Strauss (Pied Piper Press, New York, N. Y.), Milton Grant (Silk Screen Process Co., Cleveland), John Key (Admiral Screenprint Corp., Chicago), Jack Simmons (The Chromart Co., Philadelphia), Frank Mayer (Frank Mayer & Assoc., Milwaukee, Wis.), James Black (General Research & Supply Co., Detroit), Bill Isherwood (Bel-Aire Process Inc., Detroit), Leonard Gorelick (Supreme Displays, Inc., New York, N. Y.), Joseph Grossman (Masta Displays, Inc., New York, N. Y.).

Standing: W. L. Thomson (Edwin L. Wiegand Co., Pittsburgh), Robert Hackett (I.D.L., Inc., Pittsburgh), Howard McClain (Isaly Dairy Co., Pittsburgh), Ronald Peters (also Isaly Dairy Co.), Al Ulano (Serascreen Corp., New York, N. Y.), Jack Barber (Fostoria Pressed Steel Corp., Fostoria, O.), Paul Kruop (also Fostoria Pressed Steel Corp.), Jerry Smolik (Sherwin-Williams Co., Cleveland), Pete Bathory (Silk Screen Process, Inc., Cleveland), William Miskella (Miskella Infra-Red Co., Cleveland), Roy Sloan (also Miskella Infra-Red Co.), Robert Lambert (C. G. Sargents Sons, Corp., Graniteville, Mass.), Albert Basse (Albert Basse Associates, Inc., Boston), Robert Norton (R. H. Norton Co., Inc., New Haven, Conn.), Howard Parmele (Naz-Dar Company, Chicago).

Mid-Atlantic Executives Seek Better Operating Methods

OUTMODED publishing and printing practices are responsible for many of the problems newspapers face in trying to cope with steadily rising production costs. James S. Lyon, Vice Pres. and General Mgr., Washington (Pa.) *Observer* and *Reporter* and President of the Pennsylvania Newspaper Publishers' Assoc., expressed that view as he keynoted the 1953 Mid-Atlantic Newspaper Mechanical Conference held at Pittsburgh, March 12-14. Co-sponsored by PNPA and the New Jersey Press Assoc., the Mid-Atlantic Conference had an attendance of more than 450 newspaper production and mechanical executives, and mechanical manufacturer's representatives and guests from an eight state area.

Lyon said: "We find ourselves, to a frightening degree, shackled with processes that are extravagant with manpower and archaic in their approach to production." He criticized the industry for failing to attract "young imaginative minds skilled in new, electronic concepts" and for failing to take full advantage of the new processes which could reduce both labor and material costs.

J. P. Grant, Mechanical Supt., Philadelphia *Bulletin*, and Chairman of the Conference, polled a group of the mechanical superintendents attending as to how many papers represented were now using or planning to change to the following newsprint roll widths: 66 in. or over, 7 papers; 65 in., 3 papers; 64 in., 16 papers; 63 in., 3 papers; 62 in., 5 papers; 61 in., 1 paper; 60 in., 8 papers. This led to a floor discussion as to who would end up paying for the trim loss if narrower column widths become prevalent. A representative of a newsprint firm pointed out that costs would be bound to rise if more and more trim must be dumped back.

With the trend towards higher shrinkage, narrower columns, or 9 col. pages, Leo J. Carle, Production Mgr., Erie (Pa.) *Dispatch*, said it was the direct responsibility of the pressroom and stereotype department to work in closer cooperation in overcoming the difficulties that are bound to develop.

He added: Any change from the present 12 em col. will affect materially, each mechanical department. The newspapers that continue on 12-em col. and gain a saving of several inches on web width are going through a trial and elimination stage with this bugaboo called high-shrinkage. The stereotype department is the one function that receives the heaviest shock in today's method of putting a composing room made up page of 16½ in. on a 15½ in. plate."

A. H. Tolley, Asst. Mechanical Supt., Philadelphia *Inquirer*, related how the *Inquirer* controls rising costs. He said: "On our newspaper we have found that it pays to establish unit costs. In the composing room a unit is 1000 agate lines, and we work this out for different classes of work; department stores, specialty shops, national, display classified and, of course, news composition. In this way you have a ready check on each week's production. In the stereotype department, the unit is the press plate. We keep a record of these plate costs on a weekly basis. In the engraving department, the unit is the square inch. In the pressroom, the unit is 1000 8-page papers. We find that these unit costs serve to give us a close check on cost fluctuations."

Engraving Discussions

Chairman of the Photoengraving and Photography Session was Jules L. Plangere, Mechanical Supt., Asbury Park (N.J.) *Press*, assisted by Emil Nonnemocher, Manager, General Engraving Co., Lancaster, Pa. The first speaker, William A. Stewart, General Mgr., Electronic Mechanical Products Co., described the Luxometer, a light integrating device. The instrument, when installed on a camera or vacuum printing frame, automatically measures the quantity of illumination that is being received by light sensitive materials.

Once set for the desired quantity of illumination, Stewart explained, it shortens or lengthens the time of exposure to compensate for fluctuating light intensities. Among the conditions which cause variation in light intensities are line voltage fluctuations, flickering arc lamps, varying composition of carbons and different distances at which the lamps may be used.

George Bogue, General Mgr., Service Engraving Co., Pittsburgh, Pa., spoke next on *Savings Through Research*. Bogue said he has found 18 ga. zinc gives 32 per cent additional area per lb. and a saving of 5.4 per cent. Use of the lighter gauge zinc takes nothing away from the engraving and the sheets, being lighter in weight, are easier to handle.

The indirect method of color filter separation in the making of four-color engravings as used at Service Engraving Co., was explained by its foreman, Jack Hatters. He advocated following this method in shops where a black and white production system must be followed.

Scan-a-Graver Clinic

Walter E. Sheldrick, Mechanical Supt., Ridgewood (N.J.) *Herald News*, served as Chairman of the Fairchild Scan-a-Graver clinic. A panel composed of representatives of newspapers using the Scan-a-Graver included the following: William C. Jones, Salem (N.J.) *Sunbeam*; Robert P. Atwood, Brownsville (Pa.) *Telegragh*; William E. Scrivo, New Kensington (Pa.) *Dispatch*; and Len C. Anderson, Anderson Newspapers, Oakmont, Pa.

Among the discussion by members of the panel was the use of Scan-a-Graver cuts for advertising illustrations as related by Mr. Anderson. He stated: "There have been repeated instances on our papers when an ad just wouldn't have been sold if we were not able to make a cut with the Scan-a-Graver."

John Heidenreich of Fairchild Camera & Instrument Corp., the concluding speaker on the program, took up the different problems encountered in using Fairchild cuts. Heidenreich suggested that the biggest fault with photographic copy is washed out detail especially in faces, and advocated correcting it by use of bounce lighting and other techniques. The base on which the plate is mounted must be of consistent and proper height. This is especially true in a matting operation. Heavy inking and heavy press impression are other detriments to good Scan-a-Graver reproduction. The dot structure of these plates calls for a light impression for best quality, he added.

Rotary Presses and Stereotyping

Leo J. Carle, Mechanical Supt., Erie (Pa.) *Dispatch*, and Herbert G. Taylor, Mechanical Supt., Bethlehem (Pa.) *Globe-Times* and Atlantic City (N.J.) *Press Union*, served as Chairman and Co-Chairman, respectively, of the combined Rotary Press and Stereotype Session. Several speakers were heard at this meeting, including: Earl J. Gaines, Advertising Dir., Pittsburgh (Pa.) *Press*; C. R. Bertram, Sales Engineer, Minnesota Mining & Mfg. Co.; Herbert McMurtrie, Pressroom Fm., Bradford (Pa.) *Era*; Homer E. Terry, Stereotype Fm., Roanoke (Va.) *Times* and *World News*; William Barr, Pressroom Fm., Kittanning

Largest ANPA Exhibit

THE largest exhibit of newspaper equipment and supplies yet staged during an ANPA Newspaper Mechanical Conference is set for Milwaukee Wis., on June 15, 16, 17 and 18. Nearly 50 equipment manufacturers and suppliers will occupy 92 exhibit spaces in the Milwaukee Auditorium-Arena where this year's educational sessions and exhibition will be held. The exhibits will include recently developed and improved machines, supplies and methods for reducing costs in newspaper mechanical operation. At press time it was reported that only a few available display booths remained. Companies interested in obtaining space should contact immediately Printing Equipment Engineer, 1276 W. Third St., Cleveland 13, O.

Among the 450 Executives Attending Mid-Atlantic Mechanical Conference

(All names read from left to right)

1.—Milton R. Voeks, Art Director, Philadelphia *Inquirer;* E. Ashmun Parsons, jr., Mechanical Supt., Towanda (Pa.) *Daily Review;* "Gus", animated character of Riehl Galley Lock Co.; Gerald W. Hunter, Vice Pres., Matrix Contrast Corp.; Alfred B. Bedell, Mergenthaler Linotype Co.

2.—Harry B. Adsit, General Mgr., Passaic (N. J.) *Herald-News;* Nicholas M. Fellman, Mechanical Supt., Chester (Pa.) *Times;* Leo J. Carle, Production Mgr., Erie (Pa.) *Dispatch;* Paul V. Driscoll, Mechanical Supt., Connellsville (Pa.) *Courier;* and Henry C. Garland, Production Mgr., Pittsburgh *Post-Gazette.*

3.—William Osborn, Eastern Mgr., *Printing Equipment Engineer,* New York, N. Y.; Millard C. Pintard, Vice Pres. and Sales Mgr., Herrick Ink Co.; J. Harold Mintum, Production Mgr., Pittsburgh *Press;* and Albert Schirm, Mechanical Supt., Scranton (Pa.) *Tribune* and *Scrantonian.*

4.—William Barr, Pressroom Foreman, Kittanning (Pa.) *Simpsons Daily Leader Times;* John C. Arden Pressroom Foreman, Clearfield (Pa.) *Progress;* R. T. Waugh, Sam'l Binghams Son Mfg. Co.; E. O. Vandercook, President, Vandercook & Sons, Inc., shown demonstrating Vandercook Galley Proof Press.

5.—George Stevens, Scranton (Pa.) *Times;* Herbert G. Taylor, Mechanical Supt., Bethlehem (Pa.) *Globe-Times* and Atlantic City (N. J.) *Press-Union;* A. F. Nolan, Vice Pres., Nolan Corporation, shown demonstrating model of Nolan Metal Remelter.

6.—Herbert G. Taylor, Mechanical Supt., Bethlehem (Pa.) *Globe-Times* and Atlantic City (N. J.) *Press-Union;* Jules L. Plangere, Mechanical Supt., Asbury Park (N. J.) *Press;* Sol L. Swartz, Mechanical Supt., Harrisburg (Pa.) *Patriot* and *Evening News;* Claude E. Schell, Mechanical Supt., Reading (Pa.) *Eagle* and *Times;* Harold C. Berg, Mechanical Supt., Wilmington (Del.) *News* and *Journal-Every Evening;* George T. Wegemer, Mechanical Supt., St. Marys (Pa.) *Press;* and Hans E. Rosberg, Norristown (Pa.) *Times Herald.*

(Pa.) *Simpsons' Daily Leader-Times*; and William Ginsberg, Consulting Engineer, New York, N. Y.

Insulating Remelting Pots

Savings through insulation of remelting pots was explained by Mr. Barr as follows: "The greatest saving is accomplished by insulating the top of the pot with either $1\frac{1}{2}$ in. Superex blocks or $1\frac{1}{2}$ in. Banroc blanket No. 112. A hinged section is placed over the loading area to allow the operator to return his plates. The end areas around the pumps is more permanently fixed. The pumps themselves are wrapped with $1\frac{1}{2}$ in. of Banroc blanket and sealed as much as possible. Only a few minutes is required to remove the insulation in the end area in case metal inspection is necessary. In addition to power savings, the insulation reduces the dross formation due to oxidation.

"Insulation of the lip of the pot gives the next largest saving. Place $1\frac{1}{2}$ in. Banroc blanket No. 112 along the 5 in. width of the lip except for the space immediately in front of the loading area. We also insulated the metal spout and eliminated the use of the gas burners.

"The side walls of the pot are insulated with $1\frac{1}{2}$ in. or 2 in. of Banroc blanket No. 102 making certain the edge of the pot lip is covered. Asbestos cement No. 450 could also be used. It has good adhesive strength on steel. A sheet iron cover was then installed to protect the insulation. A visual check was made to insure that the side installation had not settled down leaving a bare area at the top. This refers to the standard insulation within the outer cover of the pot. In our case this insulation had settled about 9 in. in shipment.

"We operate a 6000 lb. pot with an average daily metal use of 2200 lbs. Our average monthly power bill for this use is only $31 which amounts to savings of about $35 per month. Of interest, too, is the fact that the draw-off spout for pigs has not frozen once since we insulated the pot."

Clinic for Small Papers

Another clinic at the Mid-Atlantic Conference was held for non-metropolitan newspapers using flatbed printing presses. This session was conducted by Edward N. Klein, Co-Publisher, Oakhurst (N.J.) *Home News*, as Chairman, and George T. Wegemer, Mechanical Supt., St. Marys (Pa.) *Press*, as Co-Chairman.

Speakers for this program were: Frank Baker and Ed Siess, Goss Printing Press Co.; Thomas L. Helman and John F. Nelson, jr., Irwin (Pa.) *Standard*; Herman Sedloff, Publisher, Nanty Glo (Pa.) *Journal* and *Portage Dispatch*; Lewis W. Hauck, Brookville (Pa.) *Jeffersonian Democrat*; James F. Thompson, Ebensburg (Pa.) *Mountaineer Herald*; E. S. Hassler, Publisher, Allied Newspapers, Mercer, Pa.; Frank Cammarata, Co-Publisher, Patton (Pa.) *Union Press-Courier*; James M. Dent, Co-Publisher, Waynesburg (Pa.) *Republican*; and Leonard P. Kapsch, Mergenthaler Linotype Co.

Composing Room Session

Chairman of the Composing Room Session was J. Harold Mintum, Production Mgr., Pittsburgh (Pa.) *Press*, who was assisted by Sol L. Swartz, Mechanical Supt., Harrisburg (Pa.) *Patriot* and *Evening News*. *Newspaper Typography* was the subject of a talk by R. Hunter Middleton, Director, Dept. of Typeface Design, Ludlow Typograph Co. Another speaker, John N. Barron, Mechanical Supt., La Salle (Ill.) *News-Tribune*, discussed *Short Cuts in Composing Room Operation*.

Moving Type in Cases

The concluding speaker on the Composing Room program was Joseph S. Nelson, Vice Pres., Oil City (Pa.) *Derrick* and *Blizzard*, who described the move of the two papers, as well as its commercial printing department, into a new plant last year. A complete description of the moving operation and the new plant appeared in the March 1953 issue of *Printing Equipment Engineer*.

Not included in the story, and of interest to those contemplating a move of equipment, was the portion of Nelson's talk relating to the method the Derrick Publishing Co. employed in moving type cases. He said: "We removed the cases from the type racks, leaving the type right in the cases. The cases were stacked on skids with a heavy piece of cardboard between each one. We then used a steel strapping machine, such as that used for banding boxes, and strapped the type cases firmly to the skid. This made it very easy to move with a lift truck onto the mover's truck. Not a single case of type was pied."

TTS Training and Maintenance

Emphasis on proper training for Teletypesetter tape operators was made by Frank J. Phillips, Sales Engineer, Teletypesetter Corporation, in a talk given at the Teletypesetter Maintenance and Operation Clinic. Phillips advised that new operators should learn to read the tape immediately. He said memorizing adds to the operator's confidence because "... they know what they're punching instead of operating blindly."

The speaker continued: "At the end of six to eight weeks of intensive training, a perforator operator should be able to produce approx. 200 lines per hr. Within six to eight months, about 375 lines per hr. is a reasonable expectation."

Establishment of a routine maintenance schedule based on the number of hours per day that Teletypesetter equipment is in operation was advocated by Ralph H. Halverson, Chief of Engineering Service, Teletypesetter Corporation. Under normal climatic conditions and with the equipment in service 8 to 10 hrs. a day, he said it is advisable to clean, check certain adjustments and lubricate TTS equipment once a month.

Among Halverson's other comments on maintenance was the following: "The main components of the Teletypesetter unit should, at routine intervals, be cleaned thoroughly with a solvent, using forced air to remove dirt and the solvent. The unit then should be lubricated and adjustments recommended in our maintenance specifications checked.

"Cam rollers should be oiled at least every two weeks. All felt washers on the Teletypesetter perforator and operating unit should be saturated with oil twice a week. If these felt washers are allowed to become dry, parts replacements will be necessary.

"The motor used on the Teletypesetter perforator should be cleaned and greased only once a year. Excessive oil and grease on the motor causes the collection of dust and dirt, resulting in an arcing condition which will eventually burn out the starting switch."

TAGA Program Features

The fifth annual meeting of the Technical Assoc. of the Graphic Arts will be held in Washington, D. C., April 27, 28 and 29. Meeting place is Wardman Park Hotel. Registration fee is $17.50. Plant visitations are being arranged by the Washington Committee under the chairmanship of Robert E. Rossell. John McMaster is President and Dr. Paul J. Hartsuch is Secretary-Treasurer.

Among the papers to be presented, Dr. Richard F. Shaffer announces the following for the Press Symposium: *The Effusor Dampening System* by J. Muth, A. B. Dick Co.; *Silk Screen Presses* by Victor Strauss, Pied Piper Press; *Design Problems in Press Manufacturing*, B. Huck, Huck Company.

These papers have been announced for the Photography Symposium: *Ball Four and Five Color Processes*, R. M. Leekley, Time-Life Laboratories; *Performance of Carbon Arcs*, W. W. Lozier, National Carbon Co.; *Tone Rendering of the Ideal Photomechanical Reproduction*, J. A. C. Yule, Eastman Kodak Co.

The following papers will be presented at the Platemaking Symposium: *Presensitized Offset Plates*, F. E. Bunnick, S. D. Warren Co.; *Use of Chemical Coupling Agents in Lithographic Platemaking*, G. C. Beutner, Western Printing & Litho Corp.; *Unit Chemical Operations in the Grazure Process*, J. M. Dugan, Battelle Memorial Institute.

For the Ink Symposium, *Flexographic Printing* will be discussed by J. W. Viner, International Corp.; E. J. Triebe, President will present a report from the Research and Engineering Council of the Graphic Arts.

Engineering Firm Formed

A new firm, E. A. Crawford Co., Providence, R. I., has recently been organized by Earl A. Crawford, formerly president of Crawford, Incorporated. The company will offer consulting, research and machine designing services to the Graphic Arts and paper converting industries. According to the report, it will not engage directly in machine manufacturing. Address of the newly formed concern is P. O. Box 216 at Edgewood Sta., Providence 5, R. I. Mr. Crawford will direct the personnel of the organization.

Space Saving Ideas for the Print Shop

By LILLIAN STEMP

A NUMBER of examples of how space can be utilized efficiently may be found in the small print shop, operated by the National Safety Council, Chicago. Superintendent Alfred Frieder found that some of the delicate parts and tools used on Miehle Vertical

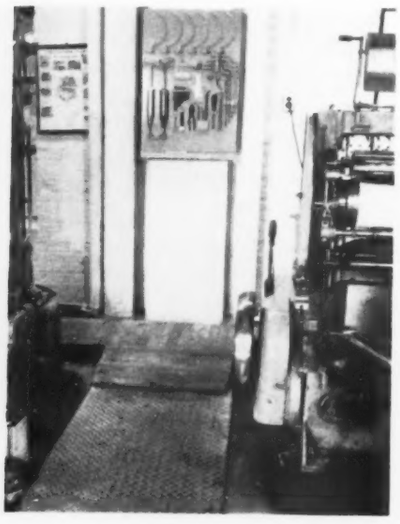


Fig. 1.

presses were being damaged when stored in a drawer. He decided that a tool board would solve the problem and save storage space. It also helped promote good housekeeping habits. The board accommodates tools and parts for two presses which are accessible to the operators of both presses (Fig. 1).

It was the emphasis on space efficiency that prompted Frieder to mount the

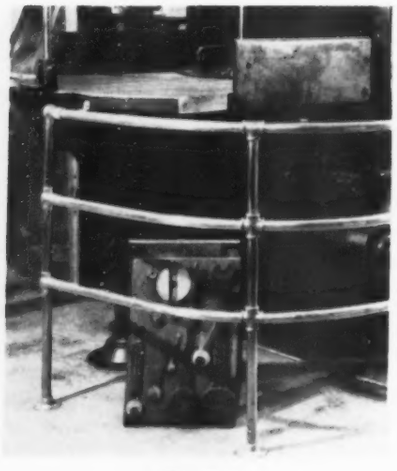


Fig. 2.

Verticals on a 6 in. high platform, the bottom portion of cork, the upper of wood. The increased height of the press permits the press operator to adjust the fountain keys without undue stooping over. Frieder noticed that often when machines are mounted on platforms, the increased height is helpful on one side of the machine, but may create a problem on the other. In order that the efficiency of the workers might not be impaired on the delivery side of the press, especially when the operator inspects the printed sheets, Frieder installed a sidewalk platform. As in the case of the tool board, Frieder found that the improvement was also responsible for promoting habits that resulted in the maintenance of a clean working area around the machines. With the flywheels, guards, etc., clearing the floor, that area was kept cleaner.

At the paper cutter, the installation of an easel type tool board on the floor

Fig. 3.

eliminated the chances of using machine space for storing tools. Use of machine working space for tool storage is bad practice (Fig. 2).

Besides efficient use of space, the tool board has saved time and effort previously required to hunt the tools in drawers and to return them to drawers when the work is completed. As in the case of the tool board for the presses, tools are kept free from handling damage.

There are a number of ways to make compressed air hoses conveniently accessible and free from kinking and damage. For example, air hose reels not only conserve space but provide protection to the hose. However, air hose reels represent an outlay of money not always available to the small print shop manager. Metal brackets may also be used, but if in the hook form, there is a tendency to allow lengths of hose to be longer than they should. As a result, the hose loops sometimes get knocked off the hooks. Frieder solved his air hose problem by making a wooden holder for it (Fig. 3).

Another space saving idea adopted by Frieder is for the storage of oil cans. He provided a shelf on a building column on which oil cans for the presses can be placed. Located in this accessible manner, the shelf with its oiling equipment also serves as a reminder that regular lubrication is an important part of the operation of presses.

Robertson Changes Name

R. R. Robertson Co., Chicago, manufacturers of photomechanical equipment, has changed its name to Robertson Photo-mechanix, Inc. Control of the business was recently purchased by Leonard S. Florsheim, jr., who has assumed the office of president. The former president, D. Franklin Keller, becomes Chairman of the Board. The company will continue its operations at 3067 Elston Ave., Chicago 18, Ill.

Helps Fight Inflation

Russell Ernest Baum, Inc., recently announced that Baumfolders in excess of $9 million value have been shipped by the company since January 1, 1950. It is further pointed out in current display advertising that 1950 prices on folding machines are still in effect despite the granting of five wage increases totaling 42c an hour since September 1, 1949. Also absorbed by the company have been increases ranging from 20 to 35 percent in the cost of steel, aluminum, motors, pumps, etc.

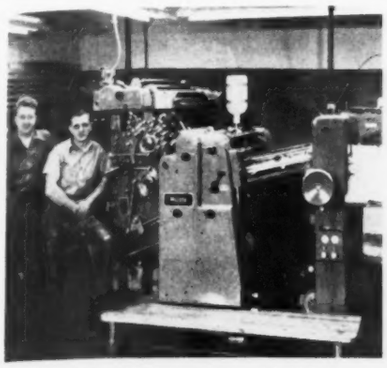
The firm has published a six page illustrated bulletin showing a number of the father-son teams employed in the construction of Baum equipment. The firm is proud of its employee continuous service record over several decades. In one case three generations in one family (grandfather, father and grandson) combine to build Baumfolders. Also included in the illustrated bulletin are descriptions of the 25 in. by 38 in., the 22 in. by 28 in., and the $17\frac{1}{2}$ in. by $22\frac{1}{2}$ in. folding machines.

The 40 year old company also reported 1477 installations in the past 33 months of the Junior Jet 17 in. by 22 in. folding machine, designed for automatic perforating, cutting, scoring and folding operations. Other features of the Junior Jet model permit from one to five folds in a single operation. Sixty styles of parallel or right angle folds are possible. The machine is available with either suction pile feed or friction feed.

Carnegie Alumni Seminar

Carnegie Institute of Technology's Annual Alumni Printing Management Seminar will be held April 24 and 25 on the campus in Pittsburgh, Pa. This year's meeting is being conducted as a joint

venture by the Printing Management Dept. under Prof. Kenneth R. Burchard, Head of the Department, and by the Carnegie Tech Printers Alumni under T. G. Bixler, President. Program Chairman, Frank Sloan of Herbick and Held, Pittsburgh, has announced that the program will be devoted to three major topics as follows: Production Problems in Printing, What's New in the Graphic Arts and Management Problems.



Opens Offset Department—With the installation of a Miehle No. 29 offset press, Fakler Printing Co., Chicago, recently opened an offset department. Shown at the new press are, left to right, Charles Schlefshe, Pressroom Foreman, and Norman Sharmer, Pressman.

Hewson Distributors

The John Hewson Co. has announced the appointment of two companies for sales, field application and servicing of its equipment. The new distributors are: Smallwood-Kemp Engineering Co., 5214 Westchester, Houston 5, Tex., covering the state of Texas; and Powerlite Devices, Ltd., with offices in Toronto, Montreal and Vancouver, Can., covering the Dominion of Canada.

Acquires Crawford Firm

The Manhasset Machine Co., 255 E. Second St., Mineola, N. Y., has acquired the physical assets of Crawford, Inc., Engineering, according to an announcement by V. De Maria, Sales Mgr. of Manhasset. It was stated that the purchase is in line with the Manhasset expansion program for supplementing its line of converting machinery.

R&E Council To Meet in St. Paul

THE 1953 Membership Meeting of the Research and Engineering Council of the Graphic Arts Industry, Inc., is to be held at the St. Paul Hotel, St. Paul, Minn., May 14 and 15. According to Council President, Edward J. Triebe, the sessions on May 14 will be devoted to reports on research progress, as well as to discussion of the reports. A series of demonstrations in connection with visits to the production facilities and product development laboratory of Minnesota Mining and Mfg. Co. in St. Paul has been arranged for May 15. The program at the MMM plant has been planned so as to provide opportunity for the Council members to ask technical questions on the use and application of products made by this firm. Non-member Graphic Arts executives have been invited to attend the meeting.

• *Time Saving Tip*

Pet Customers' Proofs

IN THE general run of job work, many commercial printing plants have what might be called "pet" customers. For these customers, proofs of jobs may be taken on different colors of stock—a separate color for each customer. The color of the proof identifies the customer. In plants where the colored proof paper is used, orders may be given that such proofs receive preferential treatment in getting the job to the pressroom. Thus it is easy to pick out the colored proof from any number of white proofs. For instance, work for John Jones is proofed on green stock; Bill Smith's proofs are taken on golden rod stock; Jimmy Butler's work is proofed on buff paper; Sam Cutler's work is proofed on light blue stock.—Reported by Herbert Ahrendt, Vice President, Ahrendt, Inc., New York, N. Y., before Cleveland Craftsmen's Club.

Mann Press Installation—Studio Press, Indianapolis, Ind., recently installed an ATF-Mann two-color offset press. Shown with the new unit, from left to right, are: Jim Hagedon, ATF Indianapolis Representative; Charlie Staudohar, ATF-Mann press demonstrator; Phil Basaw, ATF-Mann supervisor-erector; and Louis A. Croplis, ATF Cincinnati Branch Mgr.

Cleaning Saws

Harry Brentlinger, Composing Room Supt., the Terre Haute (Ind.) *Tribune-Star*, passes along a method for keeping the sides of all-purpose blades on composing room saws in good condition. Every 10 days or so in his plant the sides of the saw blades are first scraped with a steel makeup rule. After the metal (if any) has been removed Dixon's or other good mold polish is applied with a soft pine stick while the saw is running. This produces a high polish which will discourage adhesion of type metals to the sides of the saw.

Judson A. V. Hyatt (center), newly appointed Sales Mgr. of the Graphic Arts Div., Fairchild Camera and Instrument Corp., confers with C. A. Harrison (left), Commercial Sales Vice Pres., and Edward Tracht, Asst. Sales Mgr. of Graphic Arts. Hyatt will be in charge of all marketing phases of the Scan-a-Graver.

McCall Expansion

McCall Corporation, Dayton, O., has announced a $1.7 million expansion program which will include the installation of two new presses and construction of a warehouse, according to a report from the Wall St. *Journal*. To be installed in the company's present plant are a five-color and a two-color press said to cost $1 million. The $700 thousand warehouse will be constructed adjacent to the plant. McCall's prints some 50 publications including *Redbook* and *Better Living*.

for the pressman . . . profit

A pressman's best friend is his press. If it stands by him and helps him deliver high quality, he knows that there is likely to be more work for him to do tomorrow. His job will be more secure. That's part of his profit.

for the pressroom foreman . . . profit

The foreman knows that it's smart to take good care of the salable sheets which are piling up in the profit end of the press. He knows that the positive Harris delivery, with its vacuum sheet slowdowns and precise sheet joggers, will protect each piece of perfectly printed material. He recommended the purchase of the press and his judgment has proved sound. That's part of his profit.

for the press owner . . . profit

All businessmen battle costs. Publishing is one of the many businesses which measure profit margins in pennies. A Harris press wastes no time getting under way. It runs with fewer interruptions. It delivers the maximum number of salable sheets per day. That's why the majority of books by offset are produced on Harris presses—they deliver quality at a profit.

for the child with a book . . . profit

There have never been so many colorful, luxuriously illustrated books for children as there are today. Their variety and low cost are direct results of printing production efficiency. It's part of the profit a child derives from living in America.

* * *

In America's economy, commercial printing profits everyone. Specifically, our part in it includes the design and manufacture of offset lithographic presses, rotary letterpresses, power paper cutters, paper drills, bindery equipment, litho-chemicals, and other fine graphic arts equipment. Consult Harris-Seybold in all principal cities, or at 4510 East 71st Street, Cleveland 5, Ohio.

CHILDREN

HARRIS-SEYBOLD

CHILDREN'S BOOKS BEING RUN ON A HARRIS MODEL 472 FOUR-COLOR OFFSET PRESS AT THE REGENSTEINER CORPORATION, CHICAGO • COLOR PHOTOGRAPH BY CORNELIUS

fine graphic arts equipment...for everybody's profit

From Stone Age to Bi-Metal

By AXEL LUNDBYE

III.

AS FAR as lithography (offset) goes back, the process has depended on a water receptive and an ink receptive surface. The non-printing area of the plate is wetted by water, and the printing area is wetted by ink. This phenomenon was first achieved by using a greasy substance to paint on the old lithographer's stone the design to be reproduced. Later it was obtained by using zinc, aluminum, and other materials, and coating these materials with a light sensitive coating. The design was transferred by means of light through a film, either positive or negative, onto these light sensitive surfaces, and then the plate was developed. Or we can also transfer the image from the film to an ink receptive grease resin or varnish film. Then by treating the non-printing areas of the plate with chemicals to etch the film away from the non-printing areas to make them water receptive.

KEY TO LETTERS

Used in Figs. 1 to 12 inc.

L	Light
F	Film negative or positive
(RLS)	Resist light sensitive
B	Base metal
IR	Ink receptive
WR	Water sensitive
R	Hardened light sensitive resist
I	Lithographic ink

Metals as well as other materials have different characteristics. Some metals are very oily (ink receptive), while others are willing to accept wetting by water very willingly.

The two metals most used before the bi-metallic plate were aluminum and zinc. Both metals are located approximately midway between the extreme oil receptiveness and water receptiveness. Therefore, the surface of these two plates can be treated to accept either one or the other with fair success. On the other hand, most of the bi-metallic web offset printing plates with water receptive metal is on the other end of the scale, the ink receptive surface being of the copper or copper alloy, and the water receptive surface of chrome or chrome alloy.

The above is the theory of most bi-metallic offset printing plates. This type of printing plate has many advantages, and few, if any, disadvantages. Price at the present time might be a disadvantage, but that should disappear when we get more used to the bi-metallic printing plate.

We will mention a few of the advantages of bi and tri-metallic printing plates over the albumin or the deep etch plates. As already stated, the water and ink receptiveness is on the extreme end of the scale. Therefore, it can easily be seen that very much less water is required in the dampening unit. It is claimed for some plates that they use only one-fourth of the water used on the old type plates.

Because of that, it can then be said that there is very much less chance for emulsification of ink (oil) and water. When a bi or tri-metallic plate wears on the press, additional metal will be exposed. This will tend to eliminate scumming and to a degree, it will cut the required amount of etches or gum to keep the plate in printing condition.

To make zinc and aluminum plates used for offset printing, graining of the plates is necessary. By graining we increase the surface area, and in this manner increase the water receptiveness of the surface of the non-printing area. On the other hand, if we choose the proper metal for the surfaces of the bi-metallic plate, we have a natural water receptiveness so that in most cases graining can be dispensed with. That can readily be understood to be of great importance for good reproduction, especially of fine halftone, thin lines, and type, because these will now be reproduced from a smooth surface. Furthermore, the two most used metals for water receptiveness for offset printing are chrome and stainless steel. Both of these metals are very resistant to corrosion and are very hard. Consequently they are resistant to wear and therefore are capable of giving very long runs. Some bi-metallic plates we have seen have run in excess of four million impressions, and are still good. Most of the base plates for the bi-metallic offset plates have been used over and over again. The ink receptive material, either copper or copper alloy, are many times more permanent than albumin or deep etch image.

With all these advantages, what are the disadvantages? As already stated, the cost at the present time, especially for short runs because here one sheet of albumin plates can be used. For longer runs you might have to make two, three, or more albumin plates to finish the job. At the present time, it will be found that the breakeven point will be about 100,000. But we would not be surprised if in the near future the bi-metallic plates will be just as cheap as albumin plates for very short runs, especially when more is known and learned and more people get into making bi-metallic offset printing plates.

In the early experimental work with bi- and tri-metallic printing plates, it was difficult to obtain plates of the right gauge thickness. That is to say, where the total area of the plate would be acceptable to the printer. But that is behind us now. However, Europe still has that trouble to a degree. Most European printers that we talked with some time ago while on an extensive trip, would all like to purchase American materials. But

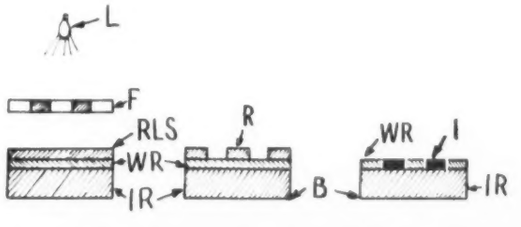


Fig. 7.—Time-Life Plate. This plate was developed at the Time-Life Laboratory, Springdale, Conn., and consists of a polished copper base (B) ink receptive (IR), and then this copper surface is flashed with a thin layer of chromium (WR) water receptive, electrolytically. The chromium surface is coated with a light sensitive resist (RLS) and a positive (F) is printed down by means of light (L) source. The plate is developed, and the chromium surface is etched out through the hardened resist (R). The plate is gummed up and ready for printing.

When these plates first came on the market, they were considered quite expensive because it was demanded that the base (B) must be polished copper. Furthermore, it was considered necessary to use a new base plate every time it went to press. That was as late as 1948, but the last time we discussed these plates with Roswell Fisher, Director of Research, Time-Life Laboratory, we learned that the chromium, after finishing printing, could be restripped, and this operation could be repeated many, many times. By these means, the Time-Life plates will be down in the price range where it will be possible for the average printer to use them.

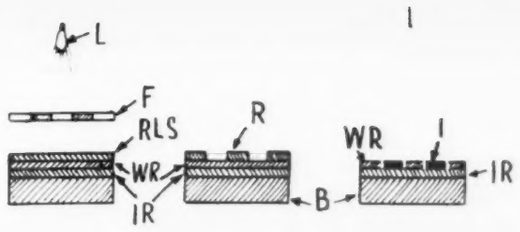


Fig. 8.—Tri-metallic Plate, developed by A B Sveriges Litografiska Tryckerier, Stockholm, Sweden. The base (B) is either steel or zinc. When the company first started, it was desired to use a steel base, but plates in the size required with close enough tolerances could not be obtained. Therefore, zinc was employed even though steel was preferred. When we discussed these plates with officials of the company in Stockholm on our last trip, they inquired if it was possible to obtain steel from the United States with the tolerances required for an offset printing plate. Of course, that was quite funny—steel to Sweden as coal to Newcastle. The base plate is first electroplated with a copper flash, and of course, if a steel base is used, a cyanide bath must be used for the plating, then a chromium flash on top of the copper. The thickness of the copper plate should not be in excess of 0.0005 in., and the chromium not more than 0.00005 in. After plating is completed, the chromium surface is coated with any of the well known light sensitive coatings (RLS) and film (F) is printed down as a positive by means of light source (L) after coatings (RLS) and film (F) is printed down by means of light source (L) as a positive and then developed. Through the hardened resist (R) an etching process is used to bare the copper (IR) ink receptive, and of course, that will be the printing area then. The hardened resist (R) is removed and the water receptive area (WR) is then the chromium. The plate is now ready for press. It will be noted now that we have two extremes on the water and ink receptive scale—copper for the ink receptive (IR) and chromium for the water receptive (WR). We were told that these plates had run more than four million impressions in the company's pressrooms in Sweden.

due to our hard currency, only Switzerland is in a position to buy.

However, there is one drawback at the present time where large printing plates are involved. The processing and pretreating as well as the electro-depositing installation to plate the printing surface of the plate, call for large specialized installations. Only large printers can afford such equipment. Therefore, most printers at the present time using bi- and trimetallic printing plates will have to depend on centrally located processing and treating plants to accommodate them. For awhile, some printers found it difficult to straighten out the base plate after they were finished with plating. This especially held true where the base was stainless steel because of the stiffness of this type of material. But that has been overcome to a great extent. As already stated, there are quite a few bi- and trimetallic plates on the market today, and we don't see how anybody can say, "This is the best, under all conditions." It might be the best for one plant but it might be absolutely useless in the next. The kind of plate to be used has to be determined by the individual plant. Such questions as: Shall we use positive or negative laydown? or Which is the most convenient and economical? should be answered by the individual plant.

So far as we know, only one of the bimetallic plates now used is advertised for both positive and negative laydown. This is the claim made by Fred'k Levey Co., Inc., distributor in the United States for the Aller plate.

As we have been going along with this discussion we have taken a look at the bi and tri-metal plates. All of the plates will be written about as we proceed.

(To Be Continued)

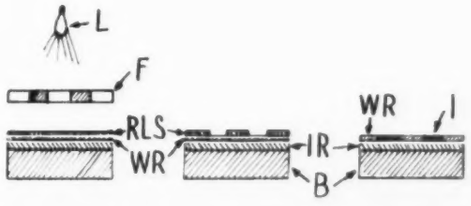


Fig. 9.—International Printing Ink Trimetallic Plate, U. S. Patent No. 2,291,854. Steel or zinc base (B). These people had the same trouble as the S.L.T. of Sweden. They could not obtain steel plates of sufficiently close thickness tolerances, therefore went to zinc base. The writer remembers the many interesting discussions with Dr. Carmen of I.P.I. regarding these plates in 1944 and 1945 when the author was Director of Research for Crowell-Collier Pub. Co. We did quite a lot of work on chrome deposition for Dr. Carmen in our laboratory. The plate was invented and developed by P. Whyzmuzis, and I.P.I is the owner of the patents. On the base plate (B) is placed an electrolytical deposit of copper (IR) ink receptive not more than 0.0005 in. thick. On top of the copper is deposited a chromium film (WR) water receptive, not more than 0.0002 in. or less in thickness. The chromium surface is coated with a special resist developed in the I.P.I Laboratory. The light sensitive material (RLS) is then exposed to a positive film (F) and developed. Through the hardened resist a special etching solution, I.P.I. non-fuming chromium etch, is used. These etches will readily attack chromium, but only to a very slight degree will they attack the copper. After the etching the hardened resist(R) is removed. Here again we have the two extremes in water and ink receptivity, chromium (WR) water receptive and copper (IR) ink receptive. Before printing with the plate, the printing area is protected with a resist. The non-printing area is desensitized with a solution of chromium sulphate, phosphoric acid, and gum arabic. Because these plates can only be used once, they will be more expensive than the plates that can be used over and over again. The plate is handled by the IPI Research Laboratory in Elizabeth, N. J.

ATF Distribution Plan

American Type Founders has announced the creation of a new regional distribution plan for its products and services. Regional warehouses, with sales and increased service and inventories, are to be maintained in the following cities: Atlanta, Baltimore, Boston, Chicago, Cincinnati, Cleveland, Dallas, Los Angeles, New York, Philadelphia, San Francisco and St. Louis. District sales and service branches will be operated in these cities: Buffalo, N. Y.; Chattanooga, Tenn.; Columbus, O.; Detroit, Mich.; Des Moines, Ia.; Indianapolis, Ind.; Jacksonville, Fla.; Kansas City, Mo.; Louisville, Ky.; Miami, Fla.; Milwaukee, Wis.; Minneapolis, Minn.; Nashville, Tenn.; New Orleans, La.; Omaha, Nebr.; Pitusburgh, Pa.; Portland, Ore.; Providence, R. I.; Richmond, Va.; Seattle, Wash.; Syracuse, N. Y.; Toledo, O.; Washington, D. C. A. E. Heinsohn Co., Denver, Colo., will continue as ATF distributor in the Rocky Mountain states.

Education Projects OK'd

Activation of 12 projects for 1953 as the program of the Education Council of the Graphic Arts Industry, and appointment of an executive secretary and full-time staff were approved by the officers of the Education Council recently. The first project scheduled is the publication of a Safety Manual for use in printing plants.

The second project is a survey of schools and colleges providing Graphic Arts industry training and education. The information gained from this survey will provide a basis for identifying the number and type of Graphic Arts courses available. These two projects, as well as the others approved by the Executive Council, are described briefly in the recently issued bulletin *Summary of Education Projects*.

Samuel M. Burt, formerly assistant managing director, Research and Engineering Council of the Graphic Arts Industry, was appointed to the position of Executive Secretary of the Education Council. In this position, he will assist Bernard J. Taymans who is serving as Managing Director of the Education Council on a part-time basis. Burt will assist Fred J. Hartman, Educational Director of the Intl. Graphic Arts Education Assoc. Elmer G. Voigt, of Western Printing and Lithographing Co., Racine, Wis., is President of the Education Council.

Northwest *conference members hear of recent engraving developments, composing room techniques, presensitized offset plates during educational sessions*

By HORACE ANNIS

FOLLOWING only six months after the 1952 conference, this year's Northwest Newspaper Mechanical Conference held recently in St. Paul, Minn., was considered a success by both officers and committee members alike in the matters of attendance, interest and excellence of educational programs. The attendance of nearly 400 was welcomed at the opening session by Joseph Cory, Chief Machinist, St. Paul *Dispatch* and *Pioneer Press*, and also a Past President of the Conference, acting for regular Conference President Robert E. Lee. Lee, who is Composing Room Supt. of the St. Paul *Dispatch* and *Pioneer Press*, was hospitalized for surgery a few days before the opening of the three-day meeting.

Next year's conference will be held at the Radisson Hotel, Minneapolis, on February 27, 28 and March 1.

Leading off the Photoengravers' Clinic presided over by George Marsh, St. Paul *Dispatch* and *Pioneer Press*, with Ebbie Jennison, Minneapolis *Star* and *Tribune*, as Co-Chairman, was a talk by A. J. Powers, Vice Pres., Chemco Photoproducts Co., Inc., on *Recent Developments in Photoengraving*.

In reference to research work now under way, Powers said: "Most of industry-wide groups are primarily interested in fundamental research or the uncovering of the natural laws which govern the technology of printing and platemaking. The suppliers are more concerned with product development or applied research. We take new, or even old, fundamental principles and constantly experiment with them to find ways to improve quality, cut costs and increase production in various phases of platemaking.

Quick Color Proofs

"A method of getting quick color proofs of halftones for newspapers has been developed by Harry W. Warnecke. Powers said Warnecke has improved attempts to get a quick color proof of separation negatives before they are used in that he obtains his proof in color halftone. Furthermore, after the color halftone proof is approved, the individual dot values of the color halftones are converted back to a negative, printed on metal and etched. The process does not take more than a few hours and should be investigated by those interested in getting quick editorial halftones in color into r.o.p. editions.

Rapid Etching Process

"The Rapid Etching process, pioneered by the Dow Chemical Co. and now nearing the field testing stage," said Powers, "will attempt to do away with the powdering steps in etching. It is still a year away from general release and will require the use of magnesium.

"The Jones Graphic Arts Co. of Ohio has developed a mercury cadmium amalgam flux that enables conventional tin-lead solder to be adhered to magnesium. Even small bits of chewed or routed type can be repaired in a manner similar to that of zinc. A device available from Arthur H. Gaebel, Inc., combines an engraver's 10X glass with a method of estimating etched highlight depth. The glass casing contains a small light which casts a beam. The beam produces a shadow of the dot between it and the next dot in a manner that its elevation may easily be judged."

Regarding Corning Glass Co.'s Photosensitive glass, Powers remarked: A special formula of glass has been discovered which has the property of becoming more etchable in hydrofluoric acid when baked at about 1500 deg. F. after strong exposure to light. The light appears to cause the glass to crystallize in the exposed areas after heating, thus letting the acid penetrate more quickly there than in the unexposed parts. Because the glass is transparent, an image in depth is obtained. It would be possible by proper technique to actually etch a design straight through the glass with almost no undercut or chewing.

Sparkling Highlights

"The Kemart Company is working on a photographic enlarging paper with a fluorescing base to be used for the photographic dropout process and special retouching effects in conjunction with the Kemart ultraviolet camera lamps. This would facilitate putting sparkling highlights on jewelry copy or help in doing screen Velox work. The photograph would have a conventional look under ordinary light but the highlights would glow when exposed to the ultraviolet source," the speaker concluded.

Presensitized Plates

A discussion of presensitized offset plates was given by Dr. J. H. Dowdall, Supervisor, Printing Products Laboratory, Minnesota Mining & Mfg. Co. Dr. Dowdall explained: "The presensitized plate, as it is available today, is not a plate designed for exceptionally long runs. It is a plate which is designed for use in job shops doing offset work with runs in the neighborhood of 25,000 to 50,000 impressions.

"The presensitized plate is available in sizes for duplicating machines up to the 22 in. by 34 in. Harris offset presses. The 0.006 in. aluminum conforms to the curvature of the press cylinder and it is easily mounted.

"The plate does not curl or wrinkle in processing and will not stretch on the press. This allows for close register and permits running process color work. The exposure of the plate is quite similar to the exposing technique for any coated plate. It is best exposed using an arc light. A suggested exposure time is $1\frac{1}{2}$ min. with a twin 35 amp. arc at 3 ft.

"Before the plate goes to the pressroom it is processed with an image developer which brings out a blacker formulation which adheres to the image and brings it up so you can see it on the plate.

"One of the characteristics of the plate is that it requires less water than does the grained zinc plate. As soon as you get excess water on your plate you start to transfer that excess water to the blanket and from the blanket back into your ink and before long you start to have ink emulsification. You cannot hold your sharp colors and your blacks are not as black as you would like to have them.

"I have seen press runs of 40,000 to 50,000 impressions on 133 and 150 line screen. I have also seen shops using the same run of material struggling to get 5,000 impressions. The difference seems to be primarily one of how carefully the plate is handled. A smooth surface plate performs the best on a press when all adjustments are set closest to press manufacturer's specifications. You have to remember that you have a smooth surface plate, not a grained surface."

Machinists' Problems Answered

The Linecasting Machinists Clinic was presided over by Mr. Cory, with Gordon Wraggett, Minneapolis *Star* and *Tribune*, as Co-Chairman. Walter F. Severin, Intertype Corporation, gave a short description of the Fotosetter, which was later supplemented by a visit to the Beissel Company plant in St. Paul, where operation of the machine was demonstrated. Briant Patterson, Mergenthaler Linotype Co., discussed the *Effects of Different Column Widths*.

Answers to questions during the discussion period were provided by a panel composed of the following: Mr. Severin; Richard Meyer, Mergenthaler Linotype Co.; Mr. Cory; William Christman, Mohr Lino Saw Co.; and Harry Dahl, Teletypesetter Corporation.

Is the shear angle the same on both Intertype and Linotype? No, if you have both Intertypes and Linotypes and try to use an Intertype knife on a Linotype or vice versa, you are heading for trouble. The angle on the knives is different. The bracket on which the knife is mounted

is also different. You will find too much shear angle when you switch them around.

What is the purpose of the first elevator auxiliary lever? To compensate for cam wear. To set it properly, first set the link and get the required $^{3}/_{8}$ to $^{5}/_{8}$ in. space between the pin and the top and bottom of the link. Then if the first elevator doesn't line up with the intermediate channel, set the auxiliary lever to bring it there.

Mouthpieces eventually get so they will not line up across the bottom. Can that be from improper stoning? Yes, nine times out of 10 unless somebody goes about it properly you'll always find the bottom low.

Why do slugs vary from type high on our Model C Intertype? With all three molds set for 30 picas, there will be a variation of 0.002 in. to 0.003 in. from end to end on two of the molds while the other will be nearly OK. In this case, sometimes the disk guide or the back slug trimming knife isn't set up properly. In other cases, the disk or molds may be warped. For those who don't know how to check a mold disk or don't have a dial indicator to take a reading, the following procedure may be employed: Put chalk marks on the teeth on the front of the disk about every 2 or 3 in. Loosen the disk guide and pull it slightly away from the disk; tighten the screw just enough to permit movement of the guide by gentle tapping. Now gradually tap the guide toward the disk while rotating it by hand, until the disk commences rubbing off the chalk marks at any portion of the front surface of the disk. This will be an indication as to whether or not the disk is running true.

What about the assemblers on Teletypesetter operated machines? Make sure the machine is equipped with a slow speed assembler. Some of the old machines are not so equipped and in such cases it must be installed on the machine.

At this point, Mr. Patterson discussed column width changes. Vise jaws, he said, can be moved in for fractional portions of a pica and the same thing is true for assembling elevators. It is also possible to obtain segments for the ejector mechanism that will permit use of the full $11\frac{1}{2}$ pica blades without damaging the liner.

Going to narrow columns creates a fairly complex problem if Teletypesetter is being used since it is based on 12 picas and an alphabet count of 118.1. In order to use the tape and produce an $11\frac{1}{2}$ pica column, he said, Linotype and Intertype have provided reduced fonts that provide for setting from the 12 pica tape for an $11\frac{1}{2}$ pica column.

Advocates Standard Colors

William Benson, St. Paul *Dispatch* and *Pioneer Press*, presided over the Stereotype Pressroom and Maintenance Machinists Clinic. Co-Chairmen were Charles West, St. Paul *Dispatch* and *Pioneer Press;* Don Little and Ed O'Neill, both of the Minneapolis *Star* and *Tribune*. Speakers before this session were James H. Ashbrook, Apprentice Director, Intl.

Representative of the 400 Newspapermen at Northwest Conference

(All names read from left to right)

1.—Walter Severin, Intertype Corporation; Joe Cory, Chief Machinist, St. Paul *Dispatch* and *Pioneer Press;* H. R. Dahl, Teletypesetter Corporation; Briant Patterson, Mergenthaler Linotype Co.

2.—Seated: Arnie Olson, Bureau of Engraving, Minneapolis; Ebbie Jennison, Engraving Supt., Minneapolis *Star* and *Tribune;* Fred Orr, Newsprint Engraving Co., Chicago. Standing: Al Lepsch, Minneapolis *Star* and *Tribune;* A. J. Powers, Vice Pres. Chemco Photoproducts Co., Inc.; Carl Richter, Donald Hackel and Lee Dahlberg, all of the Minneapolis *Star* and *Tribune*.

3.—Al Johnson, Mailing Supt., Minneapolis *Star* and *Tribune;* Joseph Mayen, Mailing Supt., St. Paul *Dispatch* and *Pioneer Press;* Cletus Natz, Mailing Supt., Sioux Falls (S. D.) *Argus Leader;* W. H. Hayford, Vice Pres., Wiretyre Corporation.

4.—John Barron, Mechanical Supt., Lasalle (Ill.) *Tribune;* George Barron Minneapolis *News;* H. R. Dahl, Teletypesetter Corporation; William Barron, Galena (Ill.) *Gazette;* Charles R. Bertram, Minnesota Mining and Mfg. Co.

5.—A demonstration of the Fotosetter at the Beissel Company plant in St. Paul drew an enthusiastic attendance. Shown here are Walter Severin, Intertype Corporation; J. E. Carson, formerly of Brown & Bigelow; John Skar, Rochester (Minn.) *Post Bulletin;* Walter Manke, Colwell Press, Inc., Minneapolis; and George Wait.

6.—Stereotype and pressroom clinic Chairman William Benson, St. Paul *Dispatch* and *Pioneer Press;* Co-Chairman Edward O'Neill, Minneapolis *Star* and *Tribune;* Charles West, St. Paul *Dispatch* and *Pioneer Press*.

New Officers, Northwest Mechanical Conference—From left to right: Secretary-Treasurer, Ralph N. Carson, Instructor, Dunwoody Industrial Institute, Minneapolis, Minn.; Second Vice Pres., Edward O'Neil, Pressroom Supt., Minneapolis *Star* and *Tribune;* President John R. Copeland, Production Mgr., Minneapolis *Star* and *Tribune;* and First Vice Pres., William Benson, Pressroom Foreman, St. Paul (Minn.) *Dispatch-Pioneer Press.*

Printing Pressmen's and Assistants Union of North America, and Charles R. McGuire, Mechanical Supt., Minneapolis *Star* and *Tribune*.

Mr. McGuire expressed the desire of most pressmen for standardization of newspaper ink colors. In the case of ads which specify special inks, it has sometimes required 20 attempts before the proper mixture could be found, he said.

McGuire gave this formula for arriving at the proper amount of each ink for R.O.P. color jobs. First, the number of square inches of solid matter, halftones and type matter must be measured. A halftone takes between 50 and 60 per cent as much ink as solids, and type takes 8 to 12 per cent as much. The mathematics runs like this: Measure the number of square inches of red, blue and yellow color in the copy and multiply by the number of impressions to be printed. Divide total by the square inch coverage per pound of ink. Yellow ink will cover approximately 200,000 sq. in. per lb., blue ink about the same except when white is added. Coverage is reduced to about 150,000 sq. in. per lb., because the white is more tacky and heavier. Red ink will cover approximately 175,000 sq. in. per lb. Then 20 lbs. must be added for each fountain used and 10 lbs. for each auxiliary fountain.

Since it is impossible to mix exactly the right amount of ink when the run ends, there is a great deal of special ink distributed about the plant. McGuire pointed out that with standard color, all such ink could be restored to storage drums.

Planning New Mail Room

The Mailing Room session was presided over by Joseph Mayen, St. Paul *Dispatch* and *Pioneer Press*, and Al Johnson, Minneapolis *Star* and *Tribune*. Speakers were W. H. Hayford, Vice Pres., Wiretyer Corporation, and Cletus G. Natz, Mail Room Foreman, Sioux Falls (S. D.) *Argus Leader*.

Natz described the planning of the *Argus Leader's* new mail room which, he added, is geared for a small daily newspaper's mailing operations. The amount of equipment is governed by the value of that equipment to the company, and speed, efficiency, labor saving and saving of operating costs all must be factors in planning, Natz said. The final measure of efficiency, he said, is to be able to adjust the mailing force to high speed and slack period to assure peak production when necessary without dead time between editions.

The new mailing room, will have a total floor space of more than 3000 sq. ft. The 8 ft. by 36 ft. loading platform will be included in a three truck garage where the trucks can be loaded under cover at all times.

Composing Room Savings

The composing room session opened with Otto J. Howard, Composing Room Foreman, St. Paul *Dispatch* and *Pioneer Press*, presiding. Harvey Spanyers, Minneapolis *Star* and *Tribune*, served as Co-Chairman. John R. Copeland, Production Mgr., Minneapolis *Star* and *Tribune*, spoke on *Composing Room Economy*.

As more modern typesetting equipment and other tools are purchased with the aim of improving the efficiency of the men the desired result is not being realized, Copeland said. Hours per page are going up instead of down. There is only one way to reverse the picture, he added, and that is to devise new ways of saving time without decreasing quality.

John Barron, Mechanical Supt., LaSalle (Ill.) *Tribune*, said if we determine how wide a cut is going to be, why can't we also say how deep it will be? That is, a 1 col. cut will always be 3 in. deep, a 2 col. cut always 24½ picas deep and a 3 col. cut 27 picas deep. In this manner, he added, we will be handling only one depth of cut for each number of columns. The advantages are that if you know how many cuts and the sizes you can proceed to makeup the page.

In referring to reductions in page costs, Barron suggested that savings could be found in simply not washing type until the page is ready to be molded. The savings can be figured as follows. Suppose there are six news stories and six ads to a page. Assuming that you wash them only once without any revises, that is 12 washings per page. If you have a 24 page paper, that would be 288 washings. That is 288 times that people have picked up a dirty rag and got their hands dirty. The stuff was washed off and the outside edge of the chase got dirty and everybody got their clothes dirty. Each time they got their hands dirty they went and washed—and time was lost. In our plant, the only man to get dirty is the one who gives the type its one washing. It is the same man all the time and the rest stay clean.

Barron also described a system for dyeing type to identify killed ads. We wanted a signal system to tell us what ads should be held and which ones should be killed. He experimented with some way to color the metal. The dye had to be permanent and not wash off when the page was washed. ANPA research finally solved the difficulty, Barron said, and the dye will be available in June. It will come in seven or eight colors.

Barron said the system works in the following manner: When three-day ads are set-up on Monday, they are colored green and on Wednesday all green ads will be killed. Ads to run through Thursday are colored red and all red ads killed after the run. The dye is not sticky and will not affect the metal, the speaker added.

Reporting on his tungsten carbide tipped saw blades put on his saws two years ago, Mr. Barron said, they are still sharp after cutting through wood, nails, steel and leather.

The speaker told of his use of colored paper for proofs of news matter coming up near deadline to hasten proofreading and corrections.

Craftsmen's Dallas Convention Program

SIX educational clinics are being planned for the Dallas, Tex., convention of the Intl. Assoc. of Printing House Craftsmen, Inc., to be held September 13 to 16. The clinics will include discussions on the following subjects: Letterpress Presswork, Offset, Premakeready, Paper, Composing Room Management and Air Conditioning. Luncheon meetings will be devoted to Printing Week and Club Management. It is planned to have two rated speakers discuss Silk Screen Printing and New Methods, Equipment and Developments. It has also been suggested to the Program Committee that there be a meeting especially for the smaller printing plants. The entertainment program will include an evening at the Woods Ranch where a chuck wagon barbecue dinner will be served followed by a Wild West Rodeo and Old-Fashioned Square Dance. The Adolphus Hotel, where the convention is to be held, has reserved 800 rooms for the Craftsmen.

When the operator pours it on . . . the COMET pours it out!

The entire Comet is engineered to meet today's composing-room needs for a fast, simple line-casting machine. Over 65 years of experience and research are behind the Comet, assuring unbeatable dependability and production.

For instance, there's nothing to compare with the Comet keyboard. It has the instant response and smooth fast action that operators appreciate when deadlines are close. When the rush of work requires, they can really "pour it on."

The installation of manually operated Comets today is an investment in the future, because these machines are quickly converted to high-speed Teletypesetter production, when you need it. Your Linotype representative can show you why Comets are right for your composing room. Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, New York.

Blue Streak Comet

"Speed when you need it!"

• LINOTYPE •

The Model 31 is available for those composing rooms requiring Teletypesetter production from three or four magazines.

Set in Linotype Spartan Family

Representatives of the Research and Engineering Council of the Graphic Arts Industry, Inc. are shown some of the laboratory facilities of Pratt Institute, Brooklyn, N. Y., where the Council has established a research project for the study of solvents, detergents and cleaning fluids used in the printing industry. Shown in one of the laboratories, from left to right, are: Richard F. Shaffer, J. G. Strobridge, C. M. Flint, Louis Pollner, Edward J. Triebe and Joseph Schwartz.

Solvent Research Project Started

ESTABLISHMENT of a research project at Pratt Institute, Brooklyn, N. Y., by the Research and Engineering Council of the Graphic Arts Industry was announced recently. The project will be concerned with solvents, detergents, and cleaning fluids used in the printing industry, and will be under the supervision of Prof. Richard F. Shaffer, Chairman of Curriculum and Head of the Dept. of Chemical Engineering.

Edward J. Triebe, Vice Pres., Kingsport Press, and President of the R. & E. Council, stated, "In addition to providing for cooperation on the part of the American Newspaper Publishers Assoc. with Pratt Institute in the research project, we have also enlisted the support of the numerous national organizations which are associated with the Research and Engineering Council."

C. M. Flint, Research Director, American Newspaper Publishers Assoc. and Chairman of the Committee on Solvents and Cleaners, said, "This research project will study and report upon the characteristic actions of various types of cleaning solutions on type metal, offset plates, engravings, stereotypes, electrotypes, press rollers and offset press blankets. Fire hazards of these cleaning solutions will also be studied as a part of the project."

At a meeting to discuss the project on solvents, the following were in attendance. Representing Pratt Institute were: H. Russell Beatty, Acting Dean, School of Engineering; Prof. Shaffer; Prof. Alexander Luce, Mechanical Engineering, Dept.; George B. Diamond; John T. Gundlach; Roy Del Valle; and Herman Y. Krinsky.

Representing the Lithographic Technical Foundation were: Wade E. Griswold, Executive Director; Charles W. Latham, Educational Dept.; R. F. Reed; J. G. Strobridge, Strobridge-Lithographing Co., Cincinnati, O.; and Louis Pollner, Consolidated Lithographing Corp., Long Island, N. Y.

Representing the Research and Engineering Council were: Mr. Triebe; Elliott Donnelley, Vice President, R. R. Donnelley & Sons, Chicago, and Vice Pres. of the R. & E. Council; Joseph Schwartz, President, Westcott and Thomson, Inc., Philadelphia, and Treasurer of the Council; Mr. Flint; C. A. Rietz, Director, Research and Development, Printing Ink Div., Interchemical Corporation; Bernard J. Taymans, Managing Director, and John Reed, Executive Secretary, both of the R. & E. Council, Washington, D. C.

Carnegie Summer Courses

As a service to employees of commercial printing plants, teachers and others interested in the Graphic Arts, the Carnegie Institute of Technology Dept. of Printing Management will offer a six weeks' program of summer courses in planning, designing, estimating, cost accounting and management instruction, as well as courses in composition, presswork and photolithography. The summer session will start June 22 and continue through August 1. Kenneth R. Burchard, Head of the Dept. of Printing Management, will be in charge.

In theory and laboratory courses, students will have an opportunity to study letterpress and offset methods, materials, processes and equipment. A Monotype laboratory has been installed and Teletypesetter equipment will permit specialized instruction to a limited number. Additional equipment has been added to the typography and photo-offset laboratories, and various platen, cylinder and two-color presses will be available to students in this field.

The printing program offered during the summer is comparable to that given during the regular semesters and students will receive college credit for their courses. Applicants will be accepted on the basis of previous education, training or printing experience.

Public Printer Nomination

Raymond L. Blattenberger, Vice Pres., Edward Stern & Co., Philadelphia, has been nominated for Public Printer of the United States by President Dwight D. Eisenhower, according to a late report from Printing Industry of America Headquarters in Washington, D. C. Blattenberger, 61, is well known in Graphic Arts circles, having served at one time as president of the United Typothetae of America. He has also been prominent in activities of the PIA, National Assoc. of Photo-Lithographers and Philadelphia Club of Printing House Craftsmen.

Electronic Matrix Detector

A DEVICE which automatically stops a Teletypesetter keyboard operating unit on a linecasting machine when matrices fail to be released from the magazine, has been reported by Shaffstall Equipment, Inc.

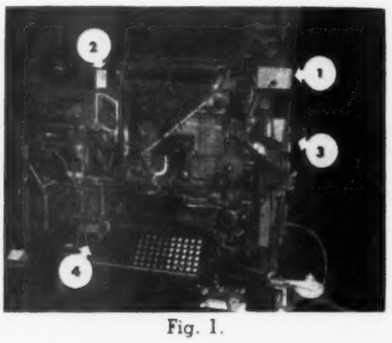


Fig. 1.

Called the Shaffstall Eletronic Mat. Detector, it is claimed the device will detect such troubles as bent or damaged matrices, shortages of matrices in magazine channels, dirt in the magazine, faulty keyboard cam operation and clogging of matrices at the lower magazine exit.

In operation, the control box *3*, Fig. 1, records a signal through a contact bar located back of the keyboard each time a keyboard keylever is depressed by the keyboard operating unit. The lamp *1* projects light rays against the electronic tube *2*. Thus when a matrix is released from the magazine, the tube sends a signal to and which is recorded in the control box *3*. If a matrix is not released from the magazine after each signal from the keyboard, the control box *3* energizes an electric lock *4* attached to the assembling elevator, preventing the elevator from raising the matrix line to the delivery slide.

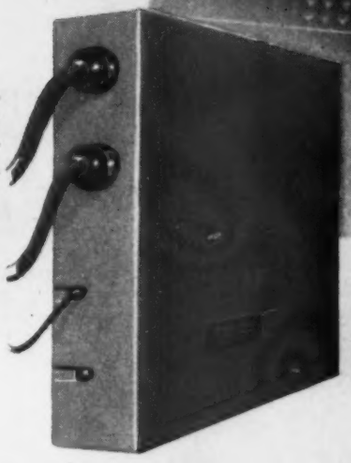
Shaffstall states the device will eliminate the necessity for setting the Teletypesetter tape back one or more lines by stopping the keyboard operating unit should spacebands clog in the spaceband box chute.

Further details concerning the detector are available by mentioning PEE No. 601 in your request.

ELIMINATE ERRORS

in Teletypesetter, Electrotypesetter

Automatic Typesetting



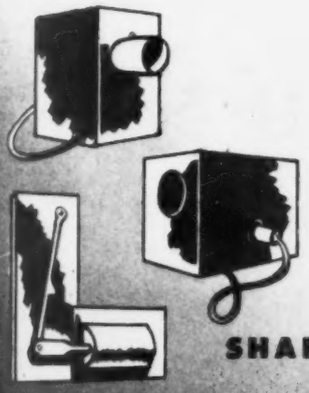
ELIMINATE *error due to bent or damaged matrices, dirty magazine, faulty keyboard cam operation*

ELIMINATE *re-runs of tape due to space band box chute clogging*

ELIMINATE *errors in proof caused by shortage of mats in channel*

The electronic brain receives impulses from the keyboard and the electric eye, and stops the machine if any mat called for is not *properly* released from magazine.

Electronic Mat Detector



Errors in automatic type setting are eliminated electronically with this amazing new attachment, the ELECTRONIC MAT DETECTOR. Now you can truely rely on your automatic machine to operate automatically . . . preventing costly resetting and machine down-time. Errors due to mechanical failures of the type setting machine are gone for good . . . the ELECTRONIC MAT DETECTOR even tells you when the linotype magazine needs cleaning or the keyboard cams need cleaning & oiling. Write for the complete story, and learn how this newest device can pay for itself quickly.

SHAFFSTALL EQUIPMENT, INCORPORATED

1408 Pearl Street, Anderson, Indiana

MANUFACTURERS AND INSTALLERS OF THE JUSTIFICATION CONTROL, ASSEMBLER SLIDE BRAKE RELEASE, TAPE REWINDER, GIANT TAPE WINDER

BOOKS

Pressmen's Ink Handbook

A PRACTICAL reference source is the *Pressman's Ink Handbook*. It has been prepared by Herbert J. Wolfe. It has been prepared specifically for the pressroom superintendent, the pressman, the student of printing and the purchasing agent. The text consists of a general discussion of the various types of inks and what they are so as to provide a valuable information background. In the 15 chapters the following subjects are discussed: Properties of Inks is a review of physical characteristics; general types; ink manufacture and definition of terms. In Chapter 2 are dealt with ink requirements and specifications; doctoring inks, selecting supplier; estimating consumption for letterpress and offset, and ink coverage chart.

In the next chapter the advantages and disadvantages of maintaining your own ink plant are discussed. Then comes the chapter dealing with ink manipulation; color matching and how to safely adjust inks; storage and shelf life; additions of reducer, drier, varnish and improving ink body.

In the next three chapters are treated individually organic pigments, organic pigments and black pigments.

Printing ink vehicles and driers and drying are discussed in the next two chapters respectively.

A separate chapter is devoted to each of the following kinds of inks: Letterpress, lithographic and intaglio.

Press Goes By Air—Carlton Youngworth, Printcraft Press, Oshkosh, Wis., recently was in a hurry to obtain delivery of a Heidelberg Press. Heidelberg Eastern Sales Co., Long Island City, N. Y., arranged shipment of the press via American Airlines to Chicago's International Printing Equipment Co. Heidelberg's General Mgr. Chas. T. Pope enabled delivery of the press in 8 hr. Ralph Novak, Asst. General Mgr. of Heidelberg (right) and Service Mgr. Charles Weber are shown signing papers at La Guardia Airport.

New types of inks are treated in Chapter 13. These include thermosetting, synthetic litho, hot wax, aniline, moisture-set, pressure-set, silk screen, metallic and water color inks. This chapter is followed by one on ink testing—equipment, dry color, strength, resistance, permanence, particle size, etc.

Chapter 15 is devoted to ink problems and their remedies such as ink difficulties encountered in letterpress and litho printing with symptoms, causes and suggested remedies. An 11 page glossary should be helpful to every owner of the book.

Pressmen's Ink Handbook—By H. J. Wolfe. Consists of 272 pages with 21 illustrations. Size, 5⅛ in. by 7¾ in. Bound in dark blue, gold stamped flexible plasticized cover with round corners. Price, $4.75 per copy postpaid in U.S.A. (Add 3% sales tax if New York, N. Y.) Price, $5.25 per copy elsewhere. Because of narrow handling margin please send cash with order. May be ordered through Printing Equipment Engineer, 1276 W. Third St., Cleveland 13, O.

Controlled Etching of Copper

PHOTOENGRAVERS Research, Inc., through its research associate, Battelle Institute, has come up with a new booklet entitled *Controlled Electrolytic Etching of Copper*. In the booklet are given a definition of electrolytic etching, proprocedure for flat etching, procedure for deep etching, maintenance of equipment, and some general remarks pertaining to electrolytic etching of copper. This is a companion booklet to two previous publications published by Photoengravers Research, Inc. *Controlled Etching of Zinc and Controlled Etching of Copper with Ferric Chloride*. Another publication entitled *Controlled Etching of Magnesium*, will be issued in the near future.

The significant results of Photoengravers Research, Inc., investigations at Battelle are being made available as an industry service. Copies of *Controlled Electrolytic Etching of Copper* may be obtained on a cash with order basis at a price of two copies for $1. Address your orders to Photoengravers Research, Inc., 505 King Ave., Columbus 1, Ohio.

Chemistry of Lithography

AN understanding of the chemical reactions which take place in the offset printing process is the ultimate objective of Dr. Paul Hartsuch's 256 page text *Chemistry of Lithography*, issued by the Lithographic Technical Foundation, Inc. The author has started in at the beginning, assuming no knowledge of chemistry on the part of the reader, and develops the necessary chemistry for his benefit.

After the basic chemistry has been presented, the chemistry of platemaking, photography, paper and ink are discussed. It is interesting to see how, from the chemical point of view, most of these things are interrelated. Fundamental chemical topics have been chosen for the early chapters which must be understood before the chemistry of lithography itself can be understood. In some instances, the relation of these topics to later practical applications in lithography are mentioned.

Some of these basic parts of the text are entitled pH—What It Is and How To Measure It; The Role of Water in Lithography; Chemical Calculations; and Chemistry of the Compounds of Carbon. After this, Dr. Hartsuch discusses albumin, deep-etch and special methods of platemaking.

Of interest to the offset pressman is the chapter which deals with chemistry in the pressroom. Some of the main points included in this section are those on chemical reactions involving ink, paper and fountain solutions, press ink rollers and solvents. Of use also to the offset printer, is the table at the end of the book of common conversion factors of the English and Metric Systems.

Chemistry of Lithography—by Dr. Paul J. Hartsuch. Book consists of 256 pages; size, 5½ in. by 8½ in.; green paper cover. May be ordered from Lithographic Technical Foundation, 131 E. 39th St., New York 16, N. Y. A pre-publication offer of $5 list (less 40% to members) and $10 to non-members is being made to those who get their orders in before November 10, 1953. (Members add 18c, non-members 40c for handling and shipping charges.)

Two Important Publications by PIA

PRINTING Industry of America, Inc., recently has announced two important publications. The first of these consists of a 120 page bulletin containing the *Proceedings of the 1952 Professional Conference for Financial Executives*. The conference was held at the Waldorf-Astoria Hotel, New York, N. Y., on September 8 and 9, 1952. In the introduction by Director of Management Services Alexander Paul, it is stated: "It . . . became apparent . . . that there is no one way of handling a financial problem. . . . How progressive companies in the printing . . . industry handle these problems is indicated in these proceedings."

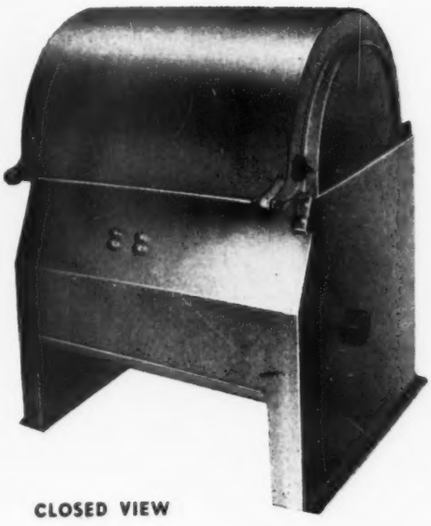
PIA has announced that these printed proceedings are available only to members of the association. The price is $10 per copy. Published by Printing Industry of America, Inc., 719 Fifteenth St., N.W., Washington 5, D. C.

Another publication of interest to PIA member firms is the *Proceedings of the 66th Annual Convention, Printing Industry of America, Inc.* (1952 St. Louis Convention.) This publication consists of 52 pages with cover. In it are contained the major addresses of printing executives who have found ways and means of either increasing productivity or cutting costs with employee participation. The book is divided into the following major sections: I, *Cut Costs*; II, *Increase Productivity*, and III, *Sell More*. There is a section on In-

(*Continued on Page 66*)

STEREOTYPER'S AUTOMATIC SEMI-CYLINDRICAL DRY MATRIX SCORCHER

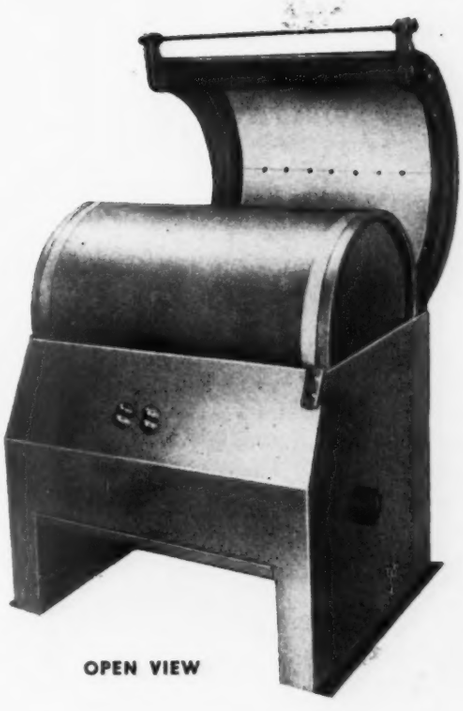
FORM-O-SCORCH MODEL CM



CLOSED VIEW

FEATURES:

Aluminum cover over entire heating drum
Adjustable roll for tension
Built in thermostat for heat control
Built in Timer
Automatic Exhaust for steam
Balanced cover



OPEN VIEW

The Automatic Semi-Cylindrical Form-O-Scorch machine has a cover over the entire drying surface of the machine to maintain heat. Heat is thermostatically controlled by built-in thermostat, and timer is also built into the machine. Machine is equipped with automatic steam exhaust. Special wired heating units give uniform heat at all times over entire drying surface of machine.

Floor Space 33" x 30" • Working height 40"
Shipping weight—400 lbs.
Net weight—300 lbs.

PRICE: f.o.b. Lynnfield, Mass.—$825.00
115 or 230 volts single or three phase

AMERICAN PUBLISHERS SUPPLY, INC.

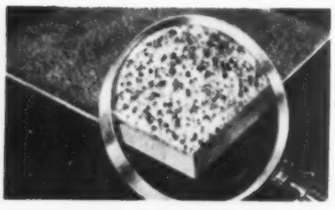
P. O. Box 421 • Lynnfield, Massachusetts

Why Floors Never Get Slippery in the CLEVELAND PLAIN DEALER'S PRESSROOM

Even accumulated ink mist and oils on the floor can't cause slipping accidents! *Reason:* A. W. ALGRIP Abrasive Rolled Steel Floor Plate safeguards the Plain Dealer's pressroom. After two years' use the Paper recently expressed its satisfaction with ALGRIP.

The truth is, wherever you install ALGRIP, accident rates *and* insurance rates are bound to decrease. For with abrasive "grinding-wheel" grain rolled densely and deeply into steel plate's upper portion, ALGRIP puts *hundreds of tiny safety brakes in every footstep.* It's virtually impossible to slip on this anti-skid metal flooring—even on steep inclines! And ALGRIP actually pays for itself in lower insurance premiums.

Start getting your *savings from safety* now. Take a moment to send for our new ALGRIP Foot-safety Booklet, AL-33. Also, ask any questions you wish; we'll be glad to answer them without obligation.



RECENT INSTALLATIONS—Here are a few recent ALGRIP installations: Seattle Times, Seattle, Washington • Beaumont Enterprise & Journal, Beaumont, Texas • St. Petersburg Times, St. Petersburg, Florida • Washington Times Herald, Washington, D.C. • Also many other names furnished on request.

◀ *Magnification shows even distribution of abrasive grain*

THERE'S NEVER A SLIP ON A. W. ALGRIP

Over 125 Years of Iron and Steel Making Experience

ALAN WOOD STEEL COMPANY

Conshohocken, Pa.

OTHER PRODUCTS: A. W. SUPER-DIAMOND Floor Plate • Plates • Sheets • Strip (Alloy and Special Grades)

Los Angeles Branch

Miller Printing Machinery Co. has opened a branch office in Los Angeles located at Rm. 905, Tishman Bldg., 3450 Wilshire Blvd., it has been announced by A. E. Searle, Vice Pres. and Sales Mgr. C. C. Kohler has been named Manager of the office which will serve Southern California, Arizona and New Mexico. At the same time it was disclosed that Frank Betlock, formerly manager of Miller's San Francisco office, has been promoted to Asst. Sales Mgr. and has assumed his new duties in Pittsburgh, Pa. Succeeding Betlock in San Francisco will be T. F. DeNormandie, formerly the firm's representative in the Cincinnati area.

Recent Equipment Reports

Hoe Press Installation

R. Hoe & Co., Inc., has reported the installation of a Hoe Color-Convertible Newspaper Press at the Patriot-News Co., Harrisburg, Pa. The press is equipped with a double folder, Hoe reels, automatic tensions and full-speed web splicing mechanisms, and improved ink control boxes. On it can be printed four colors on any four of 56 pages or on any eight of 96 pages.

Rosback Installations

Recent installations of Rosback bindery equipment reported by the F. P. Rosback Co., are as follows: Auto-Stitchers—Bill Muncrief Printing Co., Hot Springs, Ark. (installed by Roach Printers Supply Co.); Peck Bindery, New Haven, Conn. (installed by Merit Printers' Supply Co.); Columbia Printing Co., Inc., New Haven, Conn. (installed by American Type Founders, Inc.); Ocala (Fla.) Marion County *Sun*, (installed by E. C. Palmer & Co., Ltd.); Universal-Dixie Bindery, Inc., Jacksonville, Fla. (installed by Gene Brothers & Lane, Inc.); Slate Printing Co., Chicago, (installed by American Type Founders, Inc.); M. M. Vass Bookbinders, Rockford, Ill. (installed by Milwaukee Printers Roller Co.); Sterling Press, Chicago, (installed by E. G. Ryan & Co.); Dorr's Print Shop, Bridgewater, Mass. (installed by Samuel Stephens & Wickersham Quoin Co.); C. A. Hack & Son, Taunton, Mass. (installed by American Type Founders, Inc.); Athletic Publications, Minneapolis, Minn. (installed by Printers' Supply Co.); Neshanic Printing Co., Inc., Neshanic, N. J., (installed by E. P. Lawson Co., Inc.); St. Anthony's Welfare Center, Bronx, N. Y., (installed by E. P. Lawson Co., Inc.); Syracuse Lithographing Co., Inc., Syracuse, N. Y., (installed by Western Newspaper Union); Dun & Bradstreet, Inc., Brooklyn, N. Y., (installed by E. P. Lawson Co., Inc.);

(*Continued on Page 64*)

Patents

For The GRAPHIC ARTS

Covering patents issued December 2, 9, 16, 23 and 30, and January 6, 13, 20 and 27, 1953.

All new patents for the Graphic Arts are reported exclusively for Printing Equipment Engineer by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. Printing Equipment Engineer is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room Equipment:

2,624,798. PHOTOCOMPOSING MACHINE is used where selected type characters are composed in line photographically. The individual type characters are selectively scanned from a font or series of type characters associated with the screen in one cathode ray tube. The resultant impulses are utilized to create in a second cathode ray tube images of the characters so scanned. The images are then photographed onto a light sensitive member in a predetermined spaced relationship with respect to one another. Machine is a keyboard controlled composing machine embodying the principles of electronics. Invented by Emil W. Dinga, Bayside, N. Y. Assigned to Mergenthaler Linotype Co., Brooklyn, N. Y. Application March 23, 1948. 17 Claims.

2,625,258. ASSEMBLING ELEVATOR LIFT MECHANISM is for assembling elevators of typographical machines such as the Linotype and Intertype machines. The assembling elevator si lifted by power under key control. A plate is pivoted above the elevator for vertical rocking movement into and from a normal position. The plate is disconnected from the elevator by means of a spring controlled mechanism after it has been lifted. The plate is moved back into normal position after the elevator is disconnected from the plate. Invented by F. N. McClintock, jr., Havre de Grace, Md. Unassigned. Application December 30, 1948. 6 Claims.

2,625,259. SLUG CASTING MACHINE consists of a mold, wedge block, pot plunger, and ejector blade, all operated under the control of an air valve manifold and a set of timing cams. Ejector slide is operable through a pair of toggle devices carrying the blade; and prior to the active stroke, they advance the blade to increase the initial pressure upon base of a slug in breaking its adherence to the side walls of the mold. Mold is movable vertically downward in its own plane to shorten the radius of swinging movements and clears the line receptacle. Safety devices are connected directly to the control for the main driving clutch and cause disengagement of the clutch under abnormal conditions during a machine cycle. Invented by Ransom H. Turner, Great Neck, N. Y. Assigned to Mergenthaler Linotype Co., Brooklyn, N. Y. Application August 2, 1945. 6 Claims.

2,625,720. PUMP FOR TYPE CASTING for use in transferring molten type metal from a pot to a type casting mold as used in newspaper work, uses an arm located above the pot of molten metal for controlling the transfer. Flow discontinues promptly after the control arm is released, thereby providing a "dead man" safety feature to prevent accidental spilling of the metal. A rotatable delivery nozzle may be adjusted at will to deliver metal back to the pot or to deliver the metal to a plurality of points over the sides of the pot. This feature permits the user to deliver metal to one type cast while another is being placed in an adjacent position for filling. When the first cast is filled, the nozzle is simply swung to the new position over the second cast to deliver metal to same. Invented by John R. Ross, Chicago, Ill. Assigned to International Newspaper Supply Corp., Chicago, Ill. Application December 16, 1949. 4 Claims.

2,626,028. ONE REVOLUTION CLUTCH for use with type casting machines, enables operator to rapidly send lines of assembled matrices into machines for casting without removing his hands from the vicinity of the keyboard. It may be mounted on the usual type of casting machine with very little alteration. The device has an inner disc-like

Solids print black and every dot and serif reproduce faithfully, because with Tingue press packing you can regulate the overall gauge of the packing to fit the mechanical condition of your press. Tingue, Brown offers the widest range and number of press packings available today. Gauges from .012" to .120" that make up into 108 different combinations of gauges.

COMBINO—An extremely durable clean printing laminated blanket. Gauges .062", .083", .093".

TOP DRAWSHEET—is firm, durable, economical and of long life. Gauges .016", .025", .030".

CUSHION CORK—A highly resilient underpacking. Gauges .059", to .085".

TINGUCORK—Much firmer than "CUSHION CORK" and preferred where precision plates are available. Gauges .039", .055", to .085".

FOUNDATION—A firm, durable oilproof under packing laminated by duPont with "Neaprene". Gauges .032", .040", .053", to .085", .120".

COATED TYMPAN PAPER—The coating by The Carborundum Co. gives better register and measurable savings in down time on runs over 50,000.

Tingue Coated Felt — Uncoated Wool Felt — Gold Tympan Drawsheet—Improved Satisfaction—Sterling—Korker Under Blanket.

TINGULOK— This great new "clipper lacing" method is the simplest system for blanketing rotary newspaper presses.

TINGUE, BROWN & CO.

723 East Washington Boulevard, Los Angeles 21, Calif.....PRospect 6023
507 Bishop Street, N. W., Atlanta, Georgia.....ATwood 3864
1227 Wabash Avenue, Chicago 5, Ill.....HArrison 7-0083
1765 Carter Avenue, New York 57, N. Y.....CYpress 9-8800

CANADIAN SALES AGENTS ROSS WHITEHEAD & CO. LTD. MONTREAL, CANADA

clutch which is keyed to a continuously operating power shaft, the inner clutch having a peripheral groove with a stop at one end. A housing for the clutch has an opening registering with groove and a reciprocating arm moves into groove through opening to engage stop and the clutch as shaft rotates. A roller on arm moves over a cam mounted on clutch housing to disengage arm and inner clutch whereby inner clutch moves free of clutch housing. The arm may be manually released from stop. Invented by John R. Brougher, Calvert, Tex. Unassigned. Application April 3, 1947. 2 Claims.

2,626,043. **ASSEMBLER CONTROL EQUIPMENT FOR TYPE LINE CASTING MACHINES** features a send-in safety device or matrix aligner which effectively aligns the matrices preparatory to the transfer of the matrix assembly in the usual and customary manner to type line assembling machines to complete a casting process. The safety device is a bar which is mounted to be swung horizontally into inactive position in vertical alignment with, and above, the assembler of the machine and which may be swung into an inactive position out of such alignment. The bar has a long longitudinal groove adapted to guidingly receive the adjacent ends of matrices in the assembler when the bar is in active position and to engage matrices in assembler which are elevated above position so as to restore them to normal. Invented by John R. Brougher, Calvert, Tex. Unassigned. Application January 10, 1949. 3 Claims.

2,626,044. **MOLD LINER FOR TYPE CASTING MACHINES** of the Linotype or Intertype variety has an extension or tab which extends from the end of the mold when liner is in position therein. Such extension is curved in the direction of rotation of the mold-carrying disc and within the circumference of same so as not to interfere with the rotation of same. The flat upper or outer surface of tab carries in large numbers the thickness and length of the liner so that such numbers can be readily ascertained by an operator at the front of the machine. Invented by Joe Barnes, Columbus, O. Unassigned. Application February 21, 1950. 3 Claims.

... for ECONOMY, SERVICE, QUALITY... order from EASTERN!

Tru-Mold Cork Molding Blankets 1/8", 3/16", 1/4", 5/16", 3/8"

Flecto Gummed Backing Felt (Cellophane wrapped)

Double coated Cut Mounting Tape, 1/4", 1/2", 1", 2"

Neoprene Blankets 1/8", 3/16", 1/4"

Deepmold Creepers .062, .090

Plastic Molding Blankets .125

Eastern Circular Saws and Jig Saw Blades

Gummed Matrix Tape (red or brown)

Matrix Scorchers . . . Matrix Trimming Knives

Asbestos Covers for all Scorchers

Curved and Flat Casting Board

Direct Pressure Molding Materials

Composing Room and Stereotype Equipment

. . . SEND YOUR ORDER NOW!

EASTERN FOR ECONOMY

ENS

EASTERN NEWSPAPER SUPPLY, INC.

9603 Northern Boulevard • Corona 68, N. Y.

Feeding, Folding, Delivery:

2,623,746. **SHEET FEEDING APPARATUS.** Adapted for feeding sheets of relatively stiff material to a pair of printing cylinders in a printing press, two series of sheet engaging fingers are located on opposite sides of a supporting structure adapted to receive the sheets in successive order and along which the sheets are to be urged by corresponding fingers of the two series. The feed fingers are guided along an upper plane during feed travel and along a lower plane during return travel. At the end of feed travel and after the forward edge of the sheet has come into engagement between the pair of cylinders, the active fingers are retracted from engagement with the rear edge of the sheet. Spacing of fingers and their transverse alignment are predetermined. Invented by Harold W. Gegenheimer and Carl O. Siebke, Mystic, Conn. Assigned to Sun Chemical Corp., New York, N. Y. Application April 4, 1949. 3 Claims.

2,624,571. **COLLATOR SHEET EJECTING MEANS** comprises a plurality of superposed shelves open at one end; each shelf is adapted to support a stack of sheets. A vertical crank shaft is adjacent the ends of the shelves opposite their open ends. Cranks on the shaft are connected with ejectors for reciprocation toward and from the open ends of the shelves. The throw of each of the cranks is sufficient to effect complete ejection of the uppermost sheet of each stack by each ejector upon each revolution of the crank shaft. Cranks are relatively offset to effect successive ejection of the uppermost sheets during rotation of the shaft means pivotally supporting each ejector for downward swinging by gravity into engagement with the uppermost sheet of each stack during the ejection stroke. Ejector is elevated clear of the stack during return stroke of each ejector. Invented by Howard B. Dixon and Frank Almada, San Francisco, Calif. Unassigned. Application May 10, 1948. 5 Claims.

2,624,572. **FOLDING CYLINDER BLADE ADJUSTING MECHANISM** comprises a cylinder body, a drive shaft and a rotatable bearing plate at each end of the cylinder body and mounted for rotation about its axis. Folding blades are mounted on shafts journaled in the bearing plates and planetary pinions carried on the shafts rotate the blades.

A pair of adjusting shafts are journaled in the cylinder and extend longitudinally and are disposed symmetrically about its axis. Eccentric connections between the cylinder body and bearing plates comprise eccentrics carried by the adjusting shafts for movement. The adjusting shafts are rotatably adjustable for advancing and retarding the bearing plates with relation to the cylinder body. Invented by Charles A. Harless, Riverside, Conn. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application November 19, 1948. 13 Claims.

2,624,573. **WEB HANDLING MECHANISM** comprises a great number of rollers positioned for supporting an endless belt in helical form. Two or more helical portions are arranged so that when a web of paper is attached to the face of the belt at any point, the web is carried through a long circuitous path within the housing corresponding to the pattern of the helical form of the belt. The shafts for the rollers supporting one helical belt portion are prolonged so as to support a second set of rollers adapted to receive a second helical belt portion. Anglebars are provided for transferring the belt from one set of rollers to the other so that a single endless belt is effective for carrying a web a plurality of times about the helical pattern. Invented by Ernest G. Rice, Chicago, Ill. Unassigned. Application June 29, 1949. 4 Claims.

2,624,576. **FEED MECHANISM FOR FLEXIBLE SHEETS SUCH AS ENVELOPES** has a power-driven feeder adapted to extract envelopes one by one from a moving stack. A suction box is positioned across the path of travel of envelopes in the stack and arranged to draw envelopes one at a time from the stack and to hold them in position to be engaged by the feeder. Box has a vent open to atmosphere and a powered valve for alternately opening and closing the vent to atmosphere and is drawn in synchronism with the feeder to open the vent for bleeding air to the suction box when an envelope held by the box is to be extracted by the feeder to reduce suction on the envelope at that time. Mechanism is useful in the printing of impressions on envelopes, etc. Invented by Jacob R. Lauffer, Valley Stream, N. Y. Assigned to Miller-Lauffer Printing Equipment Corp., New York, N. Y. Application February 9, 1949. 15 Claims.

2,624,577. **PAPER JOGGING MACHINE** includes a hollow paper holding cradle having a bottom wall and an end wall which meet at right angles and parallel upright side walls. A power operated vibrator is mounted exteriorly on the bottom wall of the cradle midway between its ends, with the rotational axis of the vibrator parallel to the bottom wall. Cradle and vibrator form a cradle assembly which is resiliently suspended in space between two upright sides of a rigid hanger which is adapted to be supported on a table. Suspension occurs along a horizontal plane which passes through the cradle unit above its center of gravity. Vibratory forces are created by a weight on one end of an electric motor shaft. Forces are lateral, transverse, and vertical. Jogger is used for receiving and aligning edges of paper. Invented by William R. Peugnet,

CLARK 1953
POWRWORKERS
"Job Engineered" to do a hundred and one jobs
POUND FOR POUND, dollar for dollar, you can't beat the value in CLARK'S POWRWORKER Line. You get big-truck benefits at rock-bottom, small-truck cost. Take the POWRWORKER stacker, for example: a rugged, modern fork truck, but cut to fit the tighter handling pattern of narrow aisles, low-load floors, limited budgets. Short turning radius, easy finger-tip control and ample power-plant assure fast, safe handling and stacking. Truly big-truck performance in an economical package.
Ask your CLARK dealer about the POWRWORKER models: stacker, pallet truck, platform truck and tug tractor—"walk 'em or ride 'em." These power-packed time-savers are job-engineered to cut your handling costs in a hundred and one ways. They're built right and priced right to give you top-dollar value.
CLARK MATERIALS HANDLING EQUIPMENT
THE SIGN OF THE BEST BUY LINE
1903 1953
CLARK EQUIPMENT
Tug Tractor
Platform Truck
Pallet Truck
CLARK ELECTRIC AND GAS POWERED FORK TRUCKS
AND POWERED HAND TRUCKS • INDUSTRIAL TOWING TRACTORS
INDUSTRIAL TRUCK DIVISION • CLARK EQUIPMENT COMPANY • BUCHANAN 151, MICHIGAN
Please send: ☐ Powrworker literature ☐ Material Handling News
☐ Have Representative Call.
Name
Firm Name
Street
City Zone State
AUTHORIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

Wichita, Kans. Unassigned. Application September 7, 1950. 4 Claims.

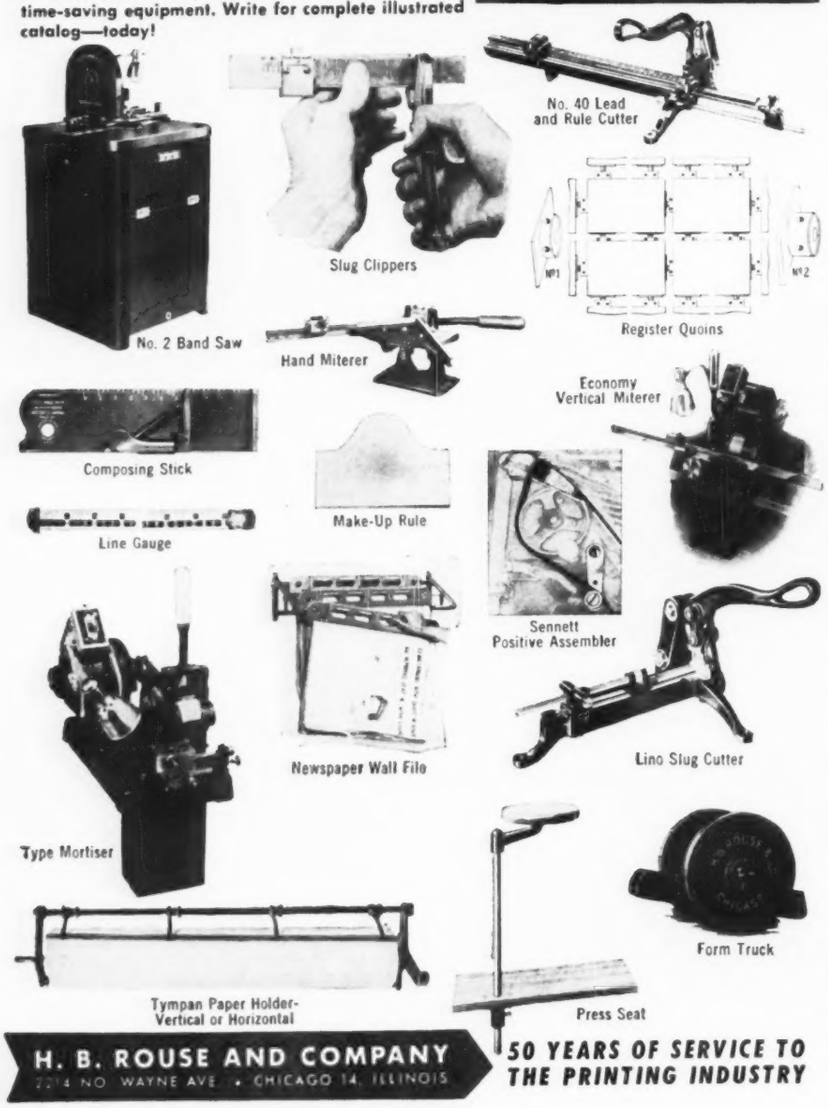
2,625,393. **WEB FEEDING MECHANISM FOR SCREEN PRINTING MACHINES** comprises a feeding roller for the material to be printed and a positively driven wheel. A driving connection consists of an overload coupling between the driven wheel and roller. Another driving connection comprises a disengageable clutch between the roller and a rotatable wheel. There is a fixed stop member and a movable one driven by the rotatable wheel and cooperating with the fixed stop member in order to limit the rotation of the wheel in at least the direction corresponding to the feeding movement of the feeding roller. Invented by Hugo F. Worm, Uddevalla, Sweden. Application November 3, 1949; in Sweden, October 3, 1947. 7 Claims.

2,625,394. **SHEET STACKING MACHINE** comprises a plurality of gripping members which advance in an endless path in succession from a sheet receiving station through a sheet releasing station back to the sheet receiving station. An inclined ramp is positioned beneath the path of travel of the gripping members between gripping station and releasing station. The trailing ends of the sheets are withdrawn from the path of succeeding sheets after they have been gripped and the sheets fall downwardly upon the inclined ramp in shingled formation. The sheets are pulled upward over the ramp by the gripping members as they advance to the discharge station. Suction means disposed on the ramp cause the trailing ends of the sheets to be flat against the ramp. Invented by Lawrence S. Brown, Massapequa, N. Y. Assigned to The Sperry Corporation, Long Island City, N. Y. Application April 19, 1949. 4 Claims.

PRACTICALLY EVERY PRINTING PLANT IN THE WORLD USES ONE OR MORE OF THESE

Rouse PRODUCTS

For absolute accuracy and extra profits, order Rouse time-saving equipment. Write for complete illustrated catalog—today!



H. B. ROUSE AND COMPANY
2214 NO. WAYNE AVE. • CHICAGO 14, ILLINOIS

50 YEARS OF SERVICE TO THE PRINTING INDUSTRY

Miscellaneous:

2,620,912. **CONVEYER FOR SUPPLYING PLATES TO PRESSES** is of the free roller type, arranged overhead in such a manner that if the stereo or other printing plates, which are in the form of segments of hollow cylinders, loaded onto it, have been given a sufficient velocity of motion at the commencement of their journey, gravity will maintain their speed until they reach their destinations. The conveyer may include any suitable number of offtake chutes corresponding to the number of delivery stations to be served. After each series of short rollers, that is, following each offtake chute, the conveyer is stepped to a narrower width until at its discharge end it may be of a width corresponding to that of a single path of travel for a stereo printing plate and may lead to the final delivery station. Invented by William Gibson and George S. Bull, London, Eng. Fifty per cent assigned to Daily Mirror Newspapers, Ltd., London, Eng. Application July 19, 1949. 8 Claims.

2,625,672. **CONTROLLER FOR ELECTRIC MOTOR DRIVEN APPARATUS**, such as a printing press, includes a time delay mechanism to determine whether the motor is to be plugged following forward inching. An electroresponsive switch connects the motor to a source of electrical energy, and a second electroresponsive switch is energizable to connect the motor to electrical energy for plugging. The control for the second switch includes the time delay mechanism which is operable a predetermined time following energization of first switch. A third switch acts as a result of the time delay to effect energization of the operating winding of second switch when first switch is deenergized, such switch being responsive ot motor slow-down during plugging to deenergize second switch. Invented by Arthur T. Calvert, Manhasset, N. Y. Assigned to Cutler-Hammer, Inc., Milwaukee, Wis. Application September 20, 1951. 7 Claims.

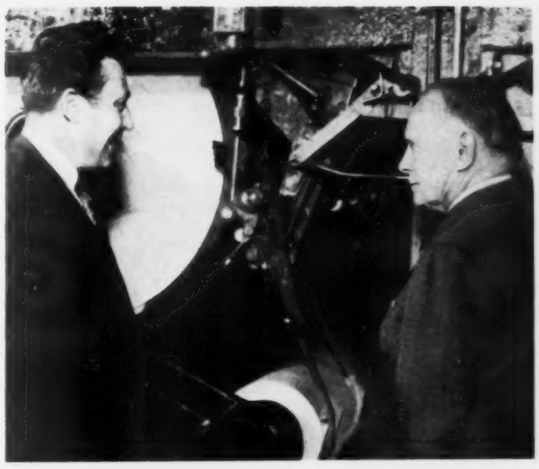
2,625,885. **INK PUMP** for feeding ink to a printing press has a cylindrical chamber having spaced inlet and outlet openings and a radially extending hole. A cylindrical rotor fits and rotates in the chamber. A squeegee of soft rubber is pressurally confined in the hole to expansively engage the peripheral surface of rotor in which surface a shallow helical groove is formed so as to extend entirely around rotor so that the two turns of the groove simultaneously underlie the squeegee. The squeegee fits into groove so as to form a fluid tight dam in each turn of the groove underlying the squeegee. The locations of the dams are allowed to shift axially but dams continue to dam the groove as rotor turns due to the resiliency of squeegee. Invented by Harold J. Mumma, Riverside, Calif. Assigned to Food Machinery & Chemical

Corp., a Corp. of Delaware. Application March 4, 1948. 3 Claims.

Platemaking:

2,621,569. FLASHING LAMP FOR HALFTONE CAMERAS. A flashing attachment for use on a halftone camera having an optically corrected lens comprises in combination a lens hood mounted on and extending forwardly of the lens, and a field lens carried by the hood and physically positionable on the axis of the camera lens and adjacent it. A light source is mounted on the hood and positioned to illuminate the field lens so the latter will form an image of the source on the axis of and within the lens. Means to move the field lens to and from the field of the camera lens are included. An adaptor is provided for connecting the hood to the camera lens to position the field lens and the light source in a definite spaced relation to the camera lens. Invented by Courtney Q. Glassey, Rochester, N. Y. Assigned to Eastman Kodak Co., Rochester, N. Y. Application June 10, 1949. 2 Claims.

2,619,694. PUMP OPERATING AND CONTROL MECHANISM FOR STEREOTYPE PLATE CASTING MACHINES. Mechanism for pumping type metal into the mold space of a plate casting machine under control of mold space forming mechanism is disclosed. The mechanism provides controls which permit operation of a pump to deliver metal to the mold space only after the casting box and core are in closed relation to form the mold space and then only if a matrix is in place in the casting box. Invented by Isidor Tornberg, Plainfield, and Paul L. Tollison, North Plainfield, N. J. Assigned to Wood Newspaper Machinery Corp., Plainfield, N. J. Application July 16, 1949. 8 Claims.



San Francisco *Chronicle* Installations — Fred E. Gross (left), Mechanical Supt., and George T. Cameron, Editor and Publisher of the San Francisco *Chronicle*, are shown here examining one of the six Wood Electro-Tab Pasters recently installed in that newspaper's reel room. At the same time, a Linotype Blue Streak Comet linecasting machine has been placed in operation in the *Chronicle*'s composing room.

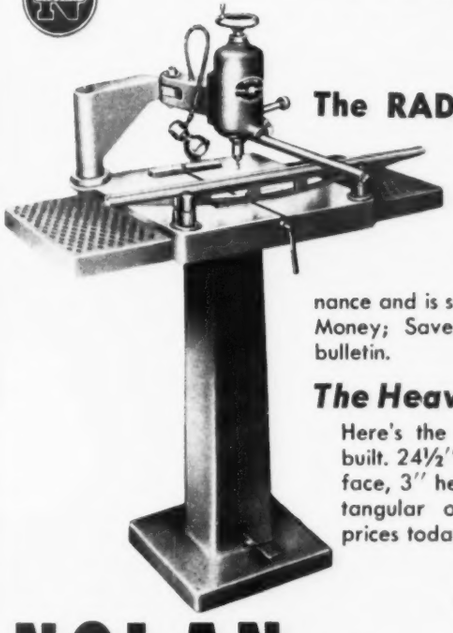
Printing Inks:

2,621,130. PRINTING INK can be set by application of steam to an imprinted base, and removed from the distributing system of a printing press with an aqueous material. Coloring matter is dispersed in a vehicle which includes a water-immiscible resinous binder, a water-miscible liquid polyglycol solvent, and a water dispersible non-ionic surface active agent. Invented by Clarence G. Cutler, Toronto, (Ont.) Can. Assigned to Sun Chemical Corporation, New York, N. Y. Application June 28, 1947. 12 Claims.

2,622,988. ZEIN INKS are for use in high speed printing operations and consist of a 10 to 30 percent solution of zein in a solvent consisting of 25 to 40 percent water and 60 to 75 percent of a lower alkyl ether of glycol boiling at 160° C. The glycol is miscible with water and is a non-solvent for zein when in anhydrous state. The ink sets quickly at press room temperatures and

For Dependable, Low-Cost Equipment

. . . investigate the NOLAN Line



The RADIAL ROUTER

Low first cost is only the beginning of savings effected with the Nolan Radial Router. The highly efficient "Motor-in-Head" drive eliminates slippage . . . reduces vibration . . . requires less maintenance and is safer to use. It saves you Time and Money; Saves Work and Worry. Send for bulletin.

The Heavy-Duty Make-Up Turtle

Here's the finest, most rugged turtle ever built. 24½" x 28½" mirror-smooth work surface, 3" height adjustment . . . choice of rectangular or X-type bottom braces. Get prices today.

Write for Catalog and New Price List

NOLAN *Corp.* ROME, N. Y.

NOLAN CORP., Rome, N. Y. P.E.E. 4

Send details of your _____

Company _____

Address _____

City _____ State _____

Name _____

humidity up to 75 percent when printed on a paper web. Invented by Robert M. Leekley, Westport, Conn. Assigned to Time, Inc., New York, N. Y. Application February 23, 1949. 6 Claims.

2,622,991. PROCESS FOR PRINTING ON THERMOPLASTICS. Color pigments, such as carbon black, are ground and mixed in acrylate solution, 60 parts of which are then added to 40 parts of partially polymerized methyl methacrylate solution to form black printing inks. The inks may be applied to plastic, paper, etc. by usual printing methods and dried until free of solvents. Invented by Robert H. Sturm, Enfield, Eng. Unassigned. Application July 30, 1948; in Great Britain July 30, 1948. 2 Claims.

Printing Presses and Equipment:

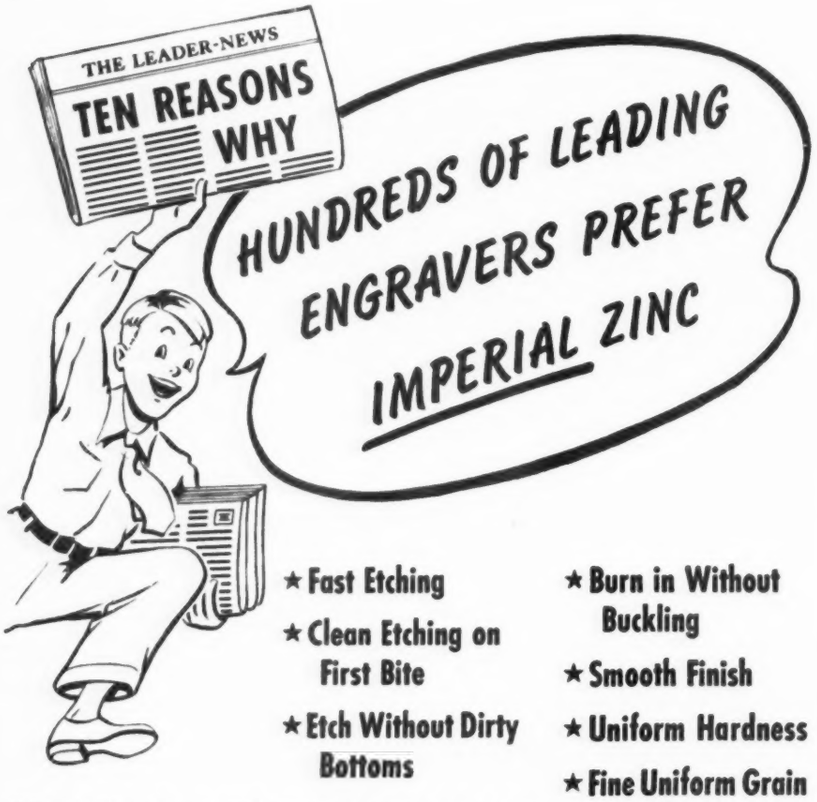
2,619,901. IMPRESSION LENGTH VARYING MEANS FOR ROTARY OFFSET PRINTING MACHINES. In a multicolor press, all the plate cylinders are packed alike, so the plate surface is even with the plate cylinder bearers. The blanket cylinder are packed alike so the blanket surface is .003-.004 inches higher than the blanket cylinder bearers. Impression cylinders are ground to different diameters so the first cylinder is the smallest and the succeeding cylinders are slightly larger. The last cylinder is of a diameter that will produce a print of desired final length. The difference between impression cylinders does not quite compensate for the change in length of a sheet as it progresses through the machine. All plate and blanket cylinders are packed in a standard manner and the exact length of print is made by minor adjustments of the control. Thus true rolling contact between plates and blankets is preserved in all units at the same time. Full control of print produced is attained. Invented by Charles W. Harrold, University Heights, O. Assigned to Harris-Seybold Co., Cleveland, O. Application August 28, 1946. 26 Claims.

2,619,904. PLATE STRAINING MECHANISM FOR USE IN PRINTING MACHINES. The ends of a plate cylinder have secured to their under surfaces clamping bars which, when in position with the plate-engaging faces, form a continuation of the periphery of the cylinder. The bars extend below the circumference of the cylinder and are movable toward one another about the cylinder so as to draw the plate ends toward one another to strain the plate about the periphery of the cylinder. The bars are passed into a slot on the cylinder and pressure is applied to strain the plate around the cylinder. This mechanism relates to the straining of a printing plate around the plate cylinder of a printing machine, especially in high speed rotary presses for planographic and offset printing. Invented by Marius Mosegaard, Copenhagen, Denmark. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application May 14, 1947. 8 Claims.

2,621,111. ALIGNING INSTRUMENT FOR PRINTING STRUCTURES comprises a horizontal and vertical leg in adjustable I-shaped relation with scales attached thereto including setting members for minute positioning of printing structures mountable on a guide member. The setting members comprise a double armed indicator resiliently clamped to the guide member. The device is capable of controlling parallelism on the sides of printing structures. Invented by Ernst Christen, Kriens, Switzerland. Unassigned. Application August 14, 1947. 7 Claims.

2,621,590. PLATE CLAMPING MECHANISM FOR PRINTING CYLINDERS is used for clamping and locking stereotype plates and the like to printing cylinders for rotary presses. Mechanism comprises a printing cylinder having at least one groove in its surface extending circumferentially thereof in a plane perpendicular to the axis of the cylinder. A pair of elongated slide members are in the groove and are movable circumferentially with the cylinder. A hook element on and extending outwardly from each slide member engages the recess in the plate. There are gear teeth on the slide members. A pair of shafts are rotatably mounted in and extend parallel to the cylinder. A gear element on each shaft engages with the gear teeth on the slides. A worm gear on the cylinder provides for rotating the shaft to move slide. Invented by Harry W. Faeber, Larchmont, N. Y. Assigned to Time, Inc., New York, N. Y. Application September 2, 1948. 6 Claims.

2,621,592. PLATE CLAMP FOR PLATE CYLINDER OF PRINTING PRESSES. Plate cylinder is formed with a lip which is adapted to receive one end of a flexible printing plate. The



★ Fast Etching
★ Clean Etching on First Bite
★ Etch Without Dirty Bottoms
★ Burn in Without Buckling
★ Smooth Finish
★ Uniform Hardness
★ Fine Uniform Grain
★ Uniform Gage
★ Easy Routing
★ Close Register on Color Work

BECAUSE the manufacture of Imperial Register-Redibak Zinc is controlled for quality every step of the way, users of Imperial Zinc meet deadlines without the delays of slow etching and make-overs. With Imperial your etcher is assured of fast, smooth etching and clean bottoms on line cuts as well as halftones of 75 screen. For close register color work, the elimination of objectionable stretch and the ability to take re-etching are outstanding characteristics. Why not order a case today?

Imperial Zinc
A Product of
IMPERIAL TYPE METAL COMPANY
SERVING THE GRAPHIC ARTS Exclusively
PHILADELPHIA 34 • NEW YORK 7 • CHICAGO 50
In Canada: LATIMER, LIMITED, TORONTO 2B

TRIPLE THREAT

By

NEW ENGLAND

The Oldest Name in Press Blankets

ONE: Our RED RUBBER BLANKETS are now the finest ever made for a press—the nearest thing to being oil-proof you can put on a cylinder.

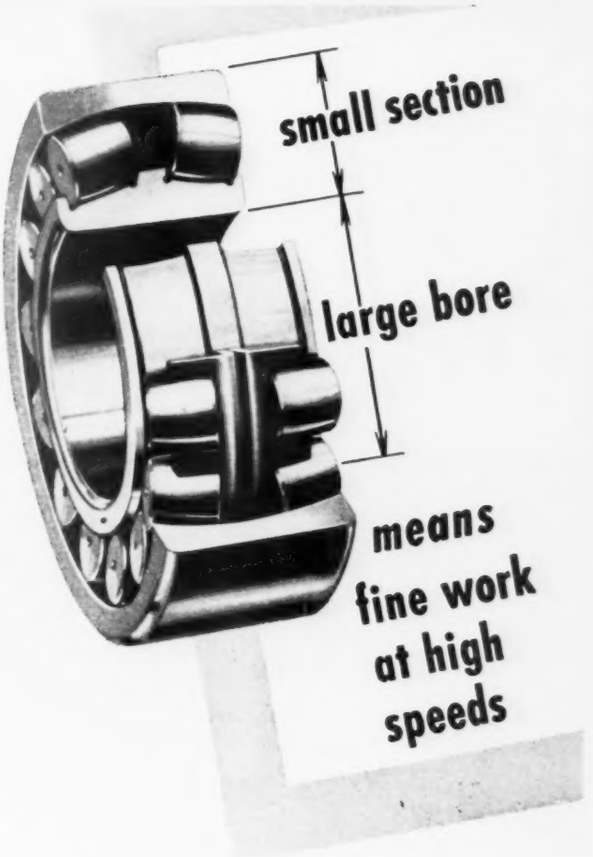
TWO: REGAL MONOCORKS need no introduction. They have built a name for themselves that is the complete envy of the trade.

THREE: When you put an IDEAL tympan over any combination of these blankets you can be sure of a packing that can not be beat.

YOU BE THE JUDGE!

NEW ENGLAND FIBRE BLANKET COMPANY

164 FREMONT STREET
WORCESTER MASSACHUSETTS
BRANCHES: New York—Chicago—San Francisco—Tulsa



This SKF Development, the Self-Aligning Printing Cylinder Bearing, provides press builders with a bearing having the largest possible bore and smallest possible outside diameter.

In addition, this spherical roller bearing design offers these extra advantages:

- Highest *capacity*, size for size, of any available bearing type.
- Self-alignment.
- Precision tolerances.
- Uniform pre-load.
- Torque-tested.
- Cool running.
- The first easy, damage-free hydraulic mounting and removal system.

More and more presses—black and color units; magazines presses; metal and paper offset presses, sheet and web fed; gravure presses—use the SKF Printing Cylinder Bearing to produce the finest work at highest speeds. 7421

SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.
—manufacturers of **SKF** *and* HESS-BRIGHT *bearings.*

SKF®
BALL AND ROLLER BEARINGS

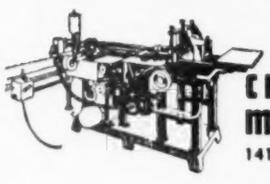
MASS MAIL

The CHESHIRE Way*

● Automatically attach addressed labels at operating speeds up to 18,000 per hour. Faster, more accurate than any other method, hand or machine. Opens mail room bottlenecks, maintains schedules, reduces subscription complaints.

100,000,000 mailings per month on Cheshire machines. Earlier models still operating after 24 years' constant use.

* An addition to, not a replacement of, your present addressing system. Apply rollstrip or continuous pack form labels.



CHESHIRE MAILING MACHINES, INC.
1415-25 W. Altgeld Street, Chicago 14, Ill.

fixed end of the plate is provided with a turn-back flange provided with notches. Pins are formed in the underside of the lip, and the notches register with the pins so the plate may be registered laterally with respect to the cylinder. A shaft has a lip with register pins. The movable end of the printing plate is formed with a reversely extending flange having notches to register with the shaft pins. The ends of shaft form stub shafts having levers keyed thereto. Levers have flat surfaces which are adapted to engage flat plates secured to the shaft. A neoprene block clamps both ends of the plate by means of the levers and clamp screws. Invented by Harry W. Faeber, Larchmont, N. Y. Assigned to Time, Incorporated, New York, N. Y. Application December 26, 1947. 8 Claims.

2,621,741. **WEB PERFORATING MECHANISM** is for use in printing apparatus for perforating the web at spaced intervals for securing registry, etc. Web passes between rotatable rolls, one of which has radially disposed punches, the other being an anvil roll having a smooth finish contacting surface of deformable metal. In combination with these rolls is an ironing roll contactable with said surface to iron out deformations therein. A rigid but shiftable tie means connects the anvil roll shaft with the ironing roll shaft. There is an eccentric mounting for the ironing roll shaft in the tie means and the eccentricity is adjustable manually to bring the ironing roll into and out of contact with the anvil roll. Invented by Gideon Kane, Green Bay, Wis. Unassigned. Application December 9, 1949. 2 Claims.

Just 5 Minutes
To Make Small Plates
RIGHT IN YOUR SHOP
with the Colight
TRADE MARK

EXPOSURE FRAME
Complete!
SELF CONTAINED

3 MODELS
- Model "B" (10 x 16 Plate)
- Model BV-1617 (To 15½ x 22½ Plate)
- Model BV-1722 (To 17 x 22 Plate)

NO SPECIAL EQUIPMENT OR EXTRA HELP REQUIRED!

COLIGHT'S simplicity, speed, and ease of operation will amaze you. . . . Completely self-contained. No arc lamps or other equipment needed. No special wiring or plumbing. . . . Anyone in your shop can operate successfully with only few minutes instruction. . . . Every shop using small offset presses (including 17 x 22) will find that COLIGHT saves plate-making delays, and speeds up shop production.

WRITE FOR LITERATURE—PRICES

COLIGHT—the exposure frame that is complete and self-contained, and now makes it possible for YOU to realize the tremendous advantages of presensitized plates!... With the COLIGHT, you can make finest quality plates in *minutes*—line or halftone. Special directional glass with fluorescent lights prevents undercutting. . . . COLIGHT pays for itself in surprisingly short time, and quickly becomes a real profit-maker. . . . Investigate COLIGHT today. . . . The nearest dealer will gladly arrange to give you a practical demonstration on request.

★ **COLIGHTS** are sold by Davidson Sales and Service Agencies, Special Products Div. of Harris-Seybold Co., and leading equipment dealers in principal cities of U. S. IN CANADA: Manton Bros., Ltd., Toronto and Winnepeg, and Harris-Seybold (Canada) Ltd., Vancouver, Toronto, and Montreal.

COLWELL LITHO PRODUCTS, INC.

Colight PRODUCTS

616 Fifth Avenue South
MINNEAPOLIS 15, MINN.

2,622,522. **MULTICOLOR WEB PRINTING MACHINE USING ENDLESS BAND PLATE CARRIERS** is adapted to run under tension over driving and guide rollers arranged in parallel and in a vertical plane. An impression cylinder coacts with the endless bands which are arranged parallel to each other. Impression cylinders are arranged between the bands, the axes of the impression cylinders being positioned in the same horizontal plane and slightly below the axes of the upper rollers of each printing unit. Printing units are driven in the contrary sense. Paper supply, re-wind rolls, sheet stacking device, cutting device and guide means are arranged in a fixed relation to the supply rolls. Re-wind rolls and impression cylinders guide two webs simultaneously and independently to their respective impression cylinders for printing on one side of each web and from the same to the re-wind roll or a single web to both impression cylinders in direct succession for printing both sides. Invented by Friedrich J. Trozmuller, Vienna, Austria. Unassigned. Application September 30, 1949. 3 Claims.

2,622,523. **INKING MECHANISM** supplies ink through a number of conduits or passages which terminate in widened and flattened orifices to an ink distributing cylinder. The conduits are supplied with ink in groups, each group containing a sufficient number of conduits for supplying a desired section of the ink distributing cylinder, generally one page wide, with ink. Each group is associated with its own means for holding a supply of ink and pumping it through the conduits. The combination of ink supply, pump means, and conduits for each group forms a section or compartment of the inking mechanism. Invented by Arthur Dressel, Great Neck, N. Y., and Thomas H. Johnson, Rowayton, Conn. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application June 24, 1948. 4 Claims.

2,622,524. **PRINTING PRESS CONTROL** is used with a printing press of the Gordon type having automatic paper feeding means and a control circuit including standard suction control valves operated by the press for actuating the feeding means to pick up and release a sheet of paper at predetermined times in each cycle of press operation. An auxiliary control valve is connected in the circuit between the first control valve and feeding means blocking the connection therebetween. Rock levers are actuated in timed relation with the operations of the press for operating the auxiliary valve to render the control circuit operative during the last only of a predetermined series of press operation cycles. A cut off lever locks out the operation of the control circuit upon failure of feeding means to pick up a sheet of paper during operation of the auxiliary valve. Invented by Roy L. Friel, Chicago, Ill. Unassigned. Application September 26, 1950. 14 Claims.

2,622,525. **THROWOFF MECHANISM** for a self feeding printing press of the Gordon type having a tiltable bed swingable forwardly and rearwardly to and from impression position has a lever operable to throw on and off the press. A pneumatic sheet feeding device includes a suction grip and con-

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

duit communicating therewith in which suction exists in the sheet grasping positions of the grip. Throw-off mechanism includes a reciprocable link connected to the lever. Link has a slidable connection with the bed and has a catch adapted to coact with the bed upon a rearward throw to shift the link rearward and throw on the press. A self-operating latch is mounted on the link and coacts with the bed upon forward throw. Pneumatic actuating means mounted on the link and connected with the suction conduit of the press coact with the latch to throw off the machine when the suction grip grasps a sheet. Invented by Abel Kluge, Woodbury Twp., Washington County, Minn., and Henry A. Brandtjen, Lakeville Twp., Dakota County, Minn. Assigned to Brandtjen and Kluge, Inc., St. Paul, Minn. Application July 27, 1949. 6 Claims.

2,623,456. STENCILING MACHINE is for stenciling paint, paste or ink onto paper, board and glass through a prepared gauze stencil by means of a traveling squeegee or scraper. Machine of power-operated type comprises a supporting table to which are fed the sheets to be printed, a pivotal frame for the gauze fabric screen to which a stencil is applied and a squeegee pivoted to a carrier that is reciprocable on the frame to perform forward working strokes and return strokes. The squeegee is engageable with the screen when lowered upon the table during the forward working strokes in order to spread printing material over and press it through the stencil screen. Invented by William P. McCormick, Glasgow, and Robert G. Wilson, Cardross, Scotland. Unassigned. Application October 7, 1948; in Great Britain March 24, 1948. 7 Claims.

2,623,457. INTAGLIO PRINTING AND EMBOSSING PRESS utilizes a plunger or similar element moving up and down to produce the required pressure of the paper against a die or plate. The plunger is located below the die instead of above it, enabling the tracks on which the carriage for the die or plate is mounted to be spaced on each side of the die carriage anvil. The pressure applied is predetermined and regulated by a relief valve which is operated by a hydraulic piston and cylinder. A pressure gauge is attached to the cylinder. Location of plunger below the die, enables the sheet being printed to be fed to the machine right side up. This facilitates the attachment and use of an automatic feeder to the press. Invented by Holmes B. Gabbert, Portland, Ore. Unassigned. Application August 12, 1947. 7 Claims.

2,623,458. WORK SUPPORTING MEANS FOR ROTARY ANILINE PRINTING PRESSES comprises, in combination, a supporting frame, a printing couple and means for guiding the web between the elements of the couple. The couple comprises a printing cylinder having a resilient surface, and an impression element comprising an elongated strip extending transversely of the direction of the web and parallel to the printing cylinder. The strip has a thin, smooth surface of arcuate convex cross-section. Radius of curvature is about 1/16" to 1/8". The thin surface bears with sharp line sliding contact with the web and urges it into rolling contact with the surface of the printing cylinder. Duration of contact is reduced so rapid seepage of ink through the web does not reach the reverse side of the web until it is beyond contact with the strip. Invented by Edward J. Peal, Durham, N. H., and Robert Zuckerman, Brooklyn, N. Y. Assigned to Kidder Press Co., Inc., Dover, N. H. Application September 11, 1948. 7 Claims.

2,623,461. MAGAZINE PRESS INK FOUNTAIN includes a fountain blade presenting its edge to a roller for forming an ink film thereon. A faster rotating ink transfer roller is in wiping engagement with the fountain roller. The blade and transfer roller are spaced from one another about the periphery of the fountain roller. Indexing means cause initial advancement of the fountain roller through an arc at least equal to the peripheral spacing as an incident to putting the press into operation. The rollers advance into wiping engagement, in timed relationship to the advancement of the fountain roller. Invented by Henry L. Mc-

Charles Stenger, Electrical Engineer of the *Journal*, presents the 25-year-old immersion heater to G.E.'s R. E. Welton and Carl Stracka.

25 Years of Trouble-free Stereo Melting

For 25½ years (to August, 1952) this Calrod* heater served the Milwaukee *Journal* without maintenance—never taken out and never cold! During this time, this and other Calrod heaters have melted type metal to help print 2,254,420,632 papers.

NO MATTER WHAT YOUR CIRCULATION, you can enjoy maintenance-free stereotype melting with electric heat. Specify electric heat when you buy stereo furnaces—dependable Calrod heaters. Your present pots can probably be converted to safe, economical electric heat over a weekend. Write for Bulletin GEA-5453 to Section 720-98, General Electric Company, Schenectady, New York.

*Registered Trade-mark of General Electric Company.

GENERAL ELECTRIC

CHAS. T. MAIN, INC.

COMPLETE SERVICES
for
NEWSPAPER AND PRINTING PLANTS

Layouts, Designs, Specifications and Supervision of Construction

Walter E. Wines — **Consultant**

80 Federal Street, Boston, Mass.
317 South Tryon Street, Charlotte, N. C.

Self Spraying **STATIKIL** TRADE MARK

PRESS BUTTON AND SPRAY
For Relief from
STATIC ELECTRICITY
$3.00 PER CAN

Just Write STATIKIL
1220 W. 6th ST., CLEVELAND, 13, OHIO

Whorter, Chicago, Ill. Assigned to The Goss Printing Press Co., Chicago, Ill. Application July 22, 1947. 13 Claims.

2,623,462. MECHANISM TO SECURE STEREOTYPE PRINTING PLATES AND IN PRINTING PLATES FOR USE WITH THAT MECHANISM. A clamp is provided for at least one of the ends of a plate with plate-engaging surfaces which are spaced apart longitudinally of the cylinder. The plate is formed with correspondingly spaced surfaces, the spacing of the surfaces on the clamp and the plate being such that those on the plate can intercalate those on the clamp. The plate can be presented face-on to the cylinder in the intercalating relationship and then slid longitudinally of the cylinder to bring its clamping surfaces into operative register with the clamping surfaces of the clamp which can then be operated to effect desired tensioning of the plate about the cylinder. Converse operation is carried out when plate is to be removed. Invented by John O. Crabtree and Charles W. Marshall, London, Eng. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application January 10, 1950; in Great Britain January 10, 1949. 6 Claims.

2,623,464. SCREEN PRINTING TABLE FOR PRINTING ON FABRICS has a top made of concrete, in which at least one heating tube, preferably having a zig-zag shape, is located in such a way that the material of the screen top bears against the outer surface of the heating tube and surrounds it. The screen top is placed on rollers. Heating medium may be applied at several points along the table top. Invented by Gudo H. Rodenburg, Helmond, and Gilles H. Aalst, near Eindhoven, Netherlands. Assigned to N. V. P. F. van Vlissingen & Co.'s Katoenfabrieken, Helmond, Netherlands. Application April 16, 1949; in the Netherlands April 3, 1948. 9 Claims.

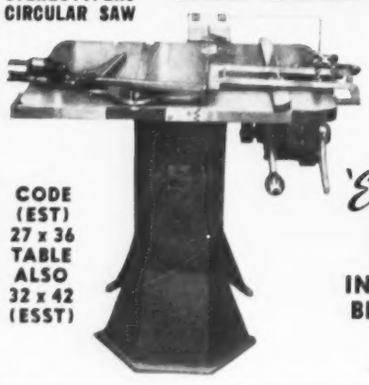
Plate Graining Company

The formation of the Michigan Litho Graining and Supply, Inc., Detroit, which will grain offset plates and handle offset chemicals and supplies, was announced recently. Officers of the new company are Marvin R. Lohr, President and General Mgr., and M. Carter Caldwell, Secretary and Plant Supt. The plant is located at 2211 Grand River Ave. in Detroit. Lohr has been associated with Copifyer Corp. of Detroit, Graphic Arts Process and Brownell Lithograph. Most recently he was Michigan and Northern Ohio representative for Ideal Roller & Mfg. Co. Caldwell studied at Rochester Institute of Technology and Jose School of Photo Engraving at Sam Houston State Teachers College. He has been connected with Evans-Winter-Hebb, Detroit.

Marvin R. Lohr, President of the newly formed Michigan Litho Graining and Supply, Inc., Detroit. Lohr has served as Fifth District Deputy Representative of the Intl. Assoc. of Printing House Craftsmen.

SPEED PRODUCTION with RICHARDS

PLATE WORKING MACHINES
SAWS — ROUTERS MORTISERS



ELECTROMATIC STEREOTYPERS CIRCULAR SAW

CODE (EST) 27 x 36 TABLE ALSO 32 x 42 (ESST)

SAVE PRESS TIME

(EMM) *'Electromatic'* MORTISING MACHINES IN PEDESTAL OR BENCH MODELS

Ask For Circulars

Flat and Curved Shell or Typhi =

Curved and Tubular Plate Enclosed Routers

(PMRS) RADIAL ROUTER
—
Straightline And Fine Detail Routing

ROUT OUT SMASHES

PATCH

SAVE PRESS TIME

J. A. RICHARDS COMPANY, Kalamazoo 60F, Michigan

EXECUTIVE Cs

Kenneth T. Brouse has been named Engraving Supt. of the Miami (Fla.) *Herald*, according to an announcement by William B. Sandlin, Mechanical Supt. Brouse previously was photoengraving superintendent of the Kalamazoo (Mich.) *Gazette* for 15 years. He entered the engraving field in 1929 with the Michigan Colorplate Co., Kalamazoo, Mich. At the *Herald*, he is presently engaged in expanding plant facilities and laying out the plant to care for future color work. He is known for his studies of coordination among engraving, stereotyping and press departments.

Arthur B. Davis, 75, associated for more than 30 years with Crowell-Collier Publishing Co., Springfield, O., passed away March 14 at his home in Fort Lauderdale, Fla. Mr. Davis retired several years ago. He is survived by his widow, a son and two grandchildren. His son, E. B. Davis, is Vice Pres. of Ideal Roller & Mfg. Co. Mr. Davis, sr., was well known throughout the Graphic Arts industry and was the inventor of a number of types of printing rollers and equipment for making them.

The appointment of James J. Morris (shown here) as Mechanical Supt. of the Albany (N. Y.) *Knickerbocker News* was announced recently by A. J. McDonald, General Mgr. Morris succeeds Eugene Daniel Jagereski who retired after 17 years with the newspaper, having served the last 23 years as mechanical superintendent. Morris was formerly composing room head at the Niagara Falls (N. Y.) *Gazette* from 1950 until he accepted his present position.

S. Frank Beatty, 59, for 26 years Secretary and General Mgr. of the Graphic Arts Assoc. of Illinois, Inc., Chicago, died of a heart ailment on February 14 at his residence in McHenry, Ill. Mr. Beatty was one of the organizers of the Printing Industry of America, Inc., and was a member of its Executive Committee. He was an organizer and president for several terms of the Graphic Arts Executives Assoc. and was also associated with a number of other printing organizations. He is survived by his widow, Mrs. Estelle Martell Beatty.

A series of lectures on typography, sponsored by Lanston Monotype Machine Co. will be given in the United States and Canada during May by Mrs. Beatrice L. Warde, Director of Publicity for The Monotype Corp. Ltd., England. According to an announcement by Robert F. Nelson, President of Lanston, Mrs. Warde will commence her speaking tour on May 7 at Carnegie Institute of Technology, Pittsburgh.

Richard B. Tullis, President of Miller Printing Machinery Co., has been elected Director for three years of the National Printing Equipment Assoc., Inc. Tullis fills the vacancy caused by the resignation of Gordon Montgomery.

Edward B. Batchelor has been elected Vice Pres. and Director of Jones Press, Inc., Minneapolis, Board Chairman Noble K. Jones announced recently. Batchelor, for 26 years active in Twin Cities Graphic Arts circles, has been associated with the Jones firm since 1937 as account executive. He is a member of the Minneapolis Advertising Club.

Behavior You Can DEPEND Upon...

● Not only do Burgess Mats behave better . . . they behave better *consistently*. The features that make them unequaled for reproduction work (smoother face, greater plasticity, uniform shrinkage) are insured by Burgess' truly unique set-up for *precision laboratory testing* at every step of volume mat-making.

The result—thousands and thousands of Mats absolutely identical in their superiority!

A Laboratory Product
BURGESS Chrome MATS

BURGESS CELLULOSE COMPANY
Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats
Freeport, Illinois

The appointments of Joseph F. Vancata as Asst. to the Pres. and Cornelius A. O'Brien as Commercial Sales Mgr. of Robertson Photo-mechanix, Inc., have been announced by Leonard S. Florsheim, jr., President. Vancata has been with Robertson since 1933 and, prior to his present position, was general manager of the company.

John A. Seibert has been appointed Manager of American Type Founders Mann Offset Press Service. In making the announcement, R. G. Marquardt, ATF Vice Pres. in Charge of Domestic Sales, stated that installation, servicing and repairing of ATF-Mann presses will be under Seibert's jurisdiction. His headquarters will be in Elizabeth, N. J.

Carl F. Struck has been named Minneapolis-St. Paul Branch Sales Mgr. for Harris-Seybold Co. it has been announced by R. R. Perry, Vice Pres. for Sales. Before joining Harris-Seybold as a Minneapolis sales representative in 1947, Struck was sales manager for the Paypar Products Co. of that city. His offices are located at 36 Fourth Ave. South in Minneapolis.

He will service accounts in western Wisconsin, North Dakota, South Dakota, eastern Montana and Wyoming.

Richard W. Richards (left) has been appointed Factory Representative for the Nolan Corporation in the Florida, Georgia and Alabama area, according to an announcement by Ralph H. Nolan, President. James Marvin Smith, jr. (right) has been appointed to the same capacity to cover the states of North Carolina, South Carolina and Tennessee. Richards will make his headquarters at Jacksonville Beach, Fla., while Smith resides at Greensboro, N. C.

Charles L. Barr has been appointed President of the F. B. Redington Co. Barr succeeds the company's founder, Frank B. Redington, as the second president in its 56 year history. He has been with the Redington firm since 1920, first as assistant to the vice president. In 1928, Barr became sales manager and has been a vice president since 1937 charged with its general management and a member of the Board of Directors.

William E. Murphy (shown here) was recently transferred from the St. Louis branch to the home office of Ideal Roller & Mfg. Co. in Chicago. Murphy's new sales territory will include northern Illinois and part of Chicago. Replacing him as St. Louis Branch Mgr. is Arthur M. Bean, formerly of the Chicago sales office. Bean will make his headquarters at 1123 Washington St., St. Louis, Mo.

A. G. Moore has been appointed a representative in the New Jersey area for the John Hewson Co.

A NEW HIGH

IN NEWSPAPER COLORWORK!

Sinclair and Carroll Standard Process Colors

- Bring out true process color values.
- Meet advertisers' demands for more brilliance.

Toning Colors

- Enable newspapers to reproduce every color of the rainbow.
- Reduce color matching time from days to minutes.

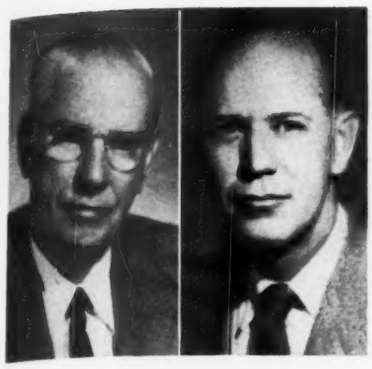
May We Send You Our Color Book?

Write for your copy.

SINCLAIR & CARROLL CO., Inc.

CHICAGO, 10
440 W. Superior St.
Tel. SUperior 7-3481

NEW YORK, 36
591 Eleventh Ave.
Tel. PLaza 7-2470



John A. Backus (left) has retired as Manager of the Dept. of Education, American Type Founders, according to an announcement by R. G. Marquardt, General Sales Mgr. Backus is 71 years of age and has been associated with ATF for 28 years. He will continue with the company on a consulting basis. John T. Porter (right), formerly Pacific Coast representative of ATF's Education Dept., will succeed Backus.

James F. Brannigan, jr., has been named St. Louis Branch Sales Mgr. for the Harris-Seybold Co. according to an announcement by R. R. Perry, Vice Pres. for Sales. Prior to his promotion, Brannigan was a St. Louis representative for Harris-Seybold. His offices are located at 2636 Locust St. He will service accounts in southern Illinois, Missouri, Iowa, Kansas, Nebraska and eastern Colorado.

Joseph Steir, President of the Alfred Allen Watts Co., Inc., Belleville, N. J., has announced the promotion of George Firmes (left), present New York plant manager, to the post of General Mgr. of Multi Color Lithographers, Inc., Newark, N. J., the Watts company's offset division. At the same time Ellis Weis (right), production manager, is moved up to the managership of the New York plant.

The Roberts Numbering Machine Co. recently announced the appointment of N. M. Olney as Plant Supt. Olney is a graduate mechanical engineer and author of a number of technical articles pertaining to tooling and production.

John E. Wilkison, Secretary and Advertising Mgr. of Chandler & Price Co., passed away on March 14 after a brief illness. He was 75 years old. Mr. Wilkison had been associated with C&P for 53 years. He is survived by his wife, Mrs. Gertrude Wilkison, who resides at 1542 Kew Rd., Cleveland Heights, O., and three children.

Robert E. Estes has been named Vice Pres. of Bulkley, Dunton and Co., Inc., in charge of the Case-Bound Book Papers Div., it has been announced by J. C. Marvin, Vice Pres. Estes joined the Bulkley, Dunton firm in 1946, as an executive on the New York sales staff.

Charles W. Pitkin has been named a Vice-President of Doubleday & Company, Inc. Pitkin is director of all Doubleday's book manufacturing in charge of Country Life Press in Garden City, N. Y., and the Doubleday press in Hanover, Pa.

4 Ways to Save Money on Type Metals

1 Send for Federated's new compact booklet entitled "How to Save Money on Type Metals."

2 Send for a wall poster on re-melt practice. It is suitable for hanging in your shop . . . done in cartoon style . . . readable, authoritative.

3 Send for a Federated dross drum and get your shop on the Federated Mor-Tin Plan.

4 Send for a Federated serviceman if you are having any problems with type metals. Federated servicemen can be reached through your Federated representative, or through any one of 22 Federated sales offices across the nation.

Federated Metals Division

AMERICAN SMELTING AND REFINING COMPANY
120 BROADWAY, NEW YORK 5, N. Y.
In Canada: Federated Metals Canada, Ltd., Toronto, Montreal

Federated first in the non-ferrous field FMD

Aluminum and Magnesium, Babbitts, Brasses and Bronzes, Anodes, Die Casting Metals, Lead and Lead Products, Solders, Type Metals

Frank J. Bagamery has been appointed Secretary and General Mgr. of the Graphic Arts Assoc. of Illinois, Inc., succeeding the late S. Frank Beatty. Prior to his present appointment, Bagamery was assistant general manager of The Franklin Assoc. of Chicago. Hubert Sheldon Bowles, President of the Illinois association and also President of Sheldon Printing Corp., Chicago, also announced that Arthur W. Brooks has resigned the superintendency of The Inland Press, Inc., Chicago, in order to accept the position of Director of Technical Service and Educational Activities of the Association.

Richard H. Bovard, Asst. General Mgr. and Industrial Relations Director of Los Angeles Printing Industries Assoc. Inc., resigned recently to accept the position of General Mgr. of Pacific Neo Gravure Corp., Los Angeles. Pacific Neo Gravure is a subsidiary of Cuneo Press, Inc., Chicago.

The Timken Roller Bearing Co. has announced the appointment of Richard K. McConkey to the post of Asst. General Mgr. of the Industrial Div. McConkey, who has assumed his new duties at the main office in Canton, O., was formerly district manager of the Industrial Div. at Timken's Moline, Ill., office.

Donald C. Cottrell, President, C. B. Cottrell & Sons Co., recently announced the election of new officers by the Board of Directors. Stanton C. Saunders (left) was elected Vice Pres. and Director of Sales and Advertising. He will make his headquarters at the executive offices in Westerly, R. I. Albert Halstead (center) was elected Vice Pres. and Sales Mgr. and will have charge of all sales activities here and abroad, with offices in Chicago and New York. Joseph E. Meyer (right) was elected Vice Pres. and Chief Engineer. Meyer will remain at the company's Westerly plant.

George Rice III of George Rice & Sons was recently elected President of Los Angeles Printing Industries Assoc., Inc. Past President Phil Ellsworth will serve on the Board in an ex-officio capacity. Other officers are Vice Pres., Larry Jeffries, Jeffries Banknote Co., and Secretary-Treasurer, Pete Fry, Pioneer Printing Co., Inc.

Many of our production executive readers will respond to your Position Wanted Ad in the Classified Section of *Printing Equipment Engineer*. Rates on p. 71.

Conference Dates

(With Organization Names and Principal Officers)

American Photoengravers Association – 1953 Convention, Hotel Statler, Boston, October 12, 13 and 14. President, D. H. Murnik, Oakland National Engraving & Gravure Co., Oakland, Calif.; Frank J. Schreiber, Executive Secretary, 166 W. Van Buren St., Chicago 4, Ill.

A Complete Service!

ADVERTISING ART

COMMERCIAL PHOTOGRAPHY

LETTERPRESS PLATES

OFFSET PLATES

ROTOGRAVURE

Hurdles Production Problems!

Complete preparation and plates on one order with . . . Graphic Arts

MAKERS OF FINE PRINTING PLATES

GRAPHIC ARTS CORPORATION OF OHIO

110 OTTAWA STREET • TOLEDO 4, OHIO

DETROIT NEW YORK CHICAGO

ANPA Mechanical Conference—1953 Conference, Milwaukee, Wis., June 15, 16, 17 and 18. Conference sessions and exhibits to be held in Civic Auditorium; Conference headquarters, Hotel Schroeder. Chairman of the Committee, William E. Gibbons, Production Mgr., Chicago (Ill.) *Herald-American;* Manager ANPA Mechanical Dept., Vernon R. Spitaleri, 370 Lexington Ave., New York 17, N. Y.

Fifth District Craftmen's Conference — 1953 Conference, Olds Hotel, Lansing, Mich., June 26 and 27. Secretary-Treasurer, Robert Wolf, Richardson-Taylor-Globe Co., 4501 Mitchell Ave., Cincinnati 32, O.

Graphic Arts Trade Association Executives—President, Robert Hostetter, Printing Industry of Pittsburgh, 3124 Jenkins Arcade Bldg., Pittsburgh 22, Pa.

Gravure Technical Association—President, John E. Hazel, Room 4800, 30 Rockefeller Plaza, New York 20, N. Y.; Secretary-Treasurer, Frank Sportelli, International Color Gravure, 39 W. 60th St., New York 23, N. Y.

Great Lakes Newspaper Mechanical Conference—1954 Conference, Claypool Hotel, Indianapolis, Ind., January 10, 11 and 12. President, Horace Parker, Press and Stereotype Foreman, Richmond (Ind.) *Palladium-Item;* Secretary-Treasurer, Don Clark, Stereotype Supt., Grand Rapids (Mich.) *Press;* Chairman Mfrs. and Suppliers Committee, Joseph W. Kaercher, Linotype Representative, 5311 Broadway, Indianapolis, Ind.

Hoosier State Press Mechanical Conference — Union Bldg., Purdue University, Lafayette, Ind., September 19 and 20. Dale C. Thompson, Exec. Chairman, Indianapolis Newspapers, Inc., Indianapolis, Ind.

Illinois Newspaper Mechanical Conference — 1953 Conference, Hotel Jefferson, Peoria, Ill., September 26 and 27. President, Thomas Lowry, Peoria (Ill.) Newspapers, Inc.; Secretary-Treasurer, Wilbur L. Augspurger, Peoria (Ill.) Newspapers, Inc.; Chairman Mfrs. and Suppliers Committee, Joseph D. Goggin, Newspaper Publishers Supply Co., 1639 N. Lorel Ave., Chicago 39.

Intl. Assoc. Electrotypers & Stereotypers—1953 Convention, Statler Hotel, Detroit, Mich., September 22, 23, 24 and 25. 1953 Spring Conference, Hotel William Penn, Pittsburgh, Pa., April 13 and 14. President, Walter C. Dohm, Norman-Dohm-O'Flaherty Co., Inc., 228 E. 45ht St., New York, N. Y.; A. P. Schloegel, Executive Secretary, 701 Leader Bldg., Cleveland 14, O.

International Association of Printing House Craftsmen — 1953 Convention, Adolphus Hotel, Dallas, Tex., September 13, 14, 15 and 16. Convention in 1954 to be held in Philadelphia, dates to be announced. President, Gordon J. Holmquist, Cole-Holmquist Press, 1228 S. Flower St., Los Angeles 15, Calif.; Executive Secy., Pearl E. Oldt, 307 E. Fourth St., Cincinnati 2, O.; Convention Chairman, Homer L. Green, Wilson Engraving Co., 2117 Commerce St., Dallas 1, Tex.

International Graphic Arts Education Association — 1953 Conference, Statler Hotel, New York, N. Y., June 14, 15, 16 and 17. President, Patrick F. Boughal, New York (N. Y.) School of Printing; Acting Educational Director, Fred J. Hartman, 719 Fifteenth St., N. W., Washington 5, D. C.

International Typographic Composition Association — 1953 Convention, Mayflower Hotel, Washington, D. C., September 24, 25 and 26. President, John R. Connell, Connell Typesetting Co., 302 E. Eighth St., Kansas City 6, Mo.; Frank M. Sherman, Executive Director, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Daily Newspaper Mechanical Conference—1953 Conference, Hotel Fort Des Moines, Des Moines, Ia., May 16, 17 and 18. President, Glen Meloy, Des Moines (Ia.) *Register-Tribune;* Secretary-Treasurer, Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald.*

Kansas-Missouri Newspaper Mechanical Conference—1953 Joint Conference, Town House, Kansas City, Kan., September 12 and 13. President, William Lawrence, Wichita (Kan.) *Eagle;* Secretary-Treasurer, Larry Miller, Kansas Press Assoc., 701 Jackson St., Topeka, Kan.; Secretary, William Bray, Missouri Press Assoc., Walter William Hall, Columbia, Mo.

Lithographers National Association — 1953 Convention, Edgewater Beach Hotel, Chicago, June 16, 17 and 18. President, William H. Walters, United States Printing and Lithograph Co., Mineola, L. I., N. Y.; Executive Director, W. Floyd Maxwell, 420 Lexington Ave., New York 17, N. Y.

Mid-Atlantic Mechanical Conference — Jointly sponsored by the New Jersey Press Assoc. and the Pennsylvaia Newspaper Publishers Assoc. Conference Director, Theodore A. Serrill, PNPA General Mgr., 209 Telegraph Bldg., Harrisburg, Pa.

Missouri Newspaper Mechanical Conference — (See Kansas-Missouri Mechanical Conference.)

National Association of Litho Clubs — 1953 Convention, Hotel Statler, Detroit,

Good Make-Ready gets — Good Results!

Good make-ready is easier and printing quality increases with Cromwell Special Prepared Tympan. It's smooth, always even. Has uniform texture. Gives you clean, sharp impressions with less work. You get a tight, strong packing that's tough—extra hard—with absolute resistance to oil and atmospheric changes. Cromwell Tympan is *unconditionally guaranteed.* You can depend on it.

for good PRINTING make-ready don't say "Tympan" say . . . CROMWELL!

CROMWELL PAPER COMPANY
4801-39 S. Whipple St.
Chicago 32, Illinois

send this coupon now for free samples

Cromwell Paper Company
4801 South Whipple Street
Chicago 32, Illinois

Send working samples of Cromwell Special Tympan to me without charge or obligation.

Name _____

Firm Address _____

City _____ Zone _____ State _____

Press Make _____ Top Sheet Size _____

(check)—Square Cut ☐ Clipped, scored ☐

May 8 and 9. President, John F. Maquire, Offset Engravers, 42 E. 20th St., New York, N. Y.; Secretary, Angelo Pustorino, Daniel Murphy Co., 480 Canal St., New York, N. Y.

National Association of Photo-Lithographers—1953 Convention, Sheraton Hotel, Chicago, October 28, 29, 30 and 31. President, A. J. Fay, 75 Varrick St., New York, N. Y.; Executive Vice President, Walter E. Soderstrom, 317 West 45th St., New York 36, N. Y.

National Printing Equipment Association, Inc. — 1953 Meeting to be held during Printing Industry of American Convention, tentatively set for Shoreham Hotel, Washington, D. C., November 16-19. Exact date of meeting to be announced later. President, Fred S. Tipson, T. W. & C. B. Sheridan Co., 135 Lafayette St., New York 13, N. Y.; James E. Bennet, Secretary, 140 Nassau St., New York 38, N. Y.

New England Mechanical Conference — 1953 Conference, Hotel Statler, Boston, October 17 and 18. Charles W. Noonan, Pressroom Supt., Providence (R. I.) *Journal-Bulletin;* Secretary-Treasurer, Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day*.

Northwest Mechanical Conference — 1954 Conference, Radisson Hotel, Minneapolis, Minn., February 27, 28 and March 1. President, John R. Copeland, Production Mgr., Minneapolis (Minn.) *Star* and *Tribune;* Secretary-Treasurer, Ralph Carson, Dunwoody Industrial Institute, Minneapolis, Minn.

Pacific Mechanical Conference — 1953 Conference, Statler Hotel, Los Angeles, September 25, 26 and 27. President, Al Tennyson, Composing Room Supt., Los Angeles *Times* and *Mirror;* Secretary for the North, Edw. N. Conley, color press foreman, San Francisco *Chronicle;* Secretary for the South, Fred J. Moyer, Los Angeles *Daily News*.

Printing Industry of America—1953 Convention (tentative), Shoreham Hotel, Washington, D. C., November 16, 17, 18 and 19. President, John M. Wolff, jr., Western Printing & Lithographing Co., Southwestern Div., 1310 S. Spring St., St. Louis, Mo.; James R. Brackett, General Manager, 719 Fifteenth St., N. W., Washington, D. C.

Research and Engineering Council of the Graphic Arts Industry, Inc.—1953 Membership Meeting, St. Paul Hotel, St. Paul Minn., May 14 and 15; Makeready Meeting No. 2, Hotel Sheraton-Gibson, Cincinnati, O., October 1 and 2, 1953; Second technical Conference on Color Photography and Color Separation to be held in Los Angeles during the Fall, dates and hotel to be announced later; 1954 meeting, May 11 and 12; 1955 meeting, May 12 and 13, city and hotel to be announced later. President, Edward J. Triebe, Kingsport Press, Kingsport, Tenn.; Managing Director, Bernard J. Taymans, 719 Fifteenth St., N. W., Washington 5, D. C.

Screen Process Printing Association—1953 Convention, Statler Hotel, New York, November 1, 2, 3 and 4. President, Joseph Grossman, Masta Displays, Inc., 230 W. 17th St., New York 11, N. Y.; Secretary, Dan Novak, 549 W. Randolph St., Chicago 6, Ill.

SNPA (Eastern Div.) Mechanical Conference — 1953 Conference, Henry Grady Hotel, Atlanta, Ga., August 24 and 25. Conference Chairman, C. Leroy Ray, Mechanical Supt., Winston-Salem (N. C.) *Journal* and *Sentinel;* Secretary, Ray B. Crow, Southern Newspaper Publishers Assoc., P. O. Box 1569, Chattanooga 1, Tenn.; Chairman of Mfrs. and Suppliers' Group, W. E. Neely, Sam'l Bingham's Son Mfg. Co., 274 Trinity Ave., S. W., Atlanta, Ga.

SNPA (Western Div.) Mechanical Conference—Chairman, Palmer Black, Mechanical Supt., Amarillo (Tex.) *Globe-Times;* Secretary, Walter Johnson, jr., P. O. Box 1569, Chattanooga 1, Tenn. Chairman of Supply Men's Committee, Karl E. Ponath, Manager, Mergenthaler Linotype Co., Dallas, Tex.

Technical Assoc. of the Graphic Arts — 1953 Meeting, Wardman Park Hotel, Washington, D. C., April 27, 28 and 29. President, John McMaster, Graphic Arts Div., Eastman Kodak Co., Rochester, N. Y.; Secretary-Treasurer, Paul J. Hartsuch, Printing Ink Div., Interchemical Corp., 161 W. Harrison St., Chicago 5.

Now FLINTSET
MAIL YOUR ORDER NOW
AVAILABLE in 14 Attractive Sparkling Colors
QUICK SETTING
Can be backed up within one hour
QUICK DRYING
Delivers rush jobs on time
GLOSS FINISH
With perfect press performance
NON-SCRATCH
Resists rough handling
CLEAN, SHARP RESULTS
Attract customers to you
Flint Inks
Manufactured exclusively by
Howard Flint Ink Co.
Printing and Lithographic Inks
HOUSTON • ATLANTA • DETROIT • CHICAGO • DENVER
CLEVELAND • LOS ANGELES • NEW ORLEANS • INDIANAPOLIS

Equipment Reports

(Continued from Page 48)

Hampshire Press, Rockville Center, L. I., New York (installed by E. C. Fuller Co.); Accurate Paper Ruling Co., New York, N. Y., (installed by Irving Nissenbaum); Drake-Triune Co., Inc., New York, N. Y., (installed by E. P. Lawson Co., Inc.); American-Bond Printing Co.,

HERE'S HOW IMPERIAL'S DROSS EXCHANGE SERVICE WORKS...

WE SUPPLY THIS...

Imperial dross drums are loaned without charge—250 or 500 or 750 lb. size.

YOU DO THIS...

Accumulate your dross in one of these drums. Then ship it to us.

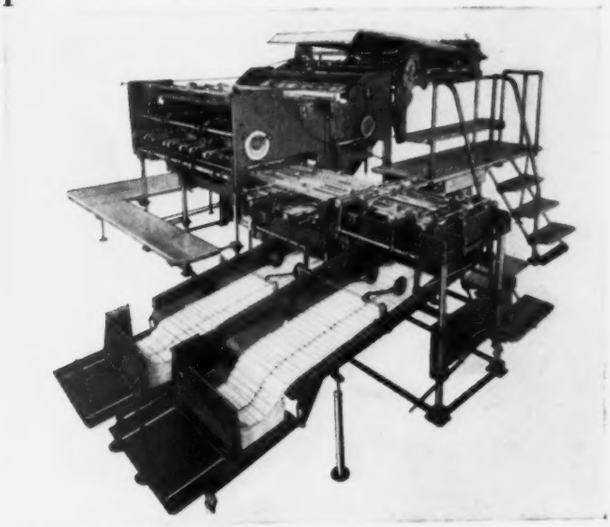
WE DO THIS...

We send you in pound-for-pound exchange at low cost differential the PLUS METAL to maintain your working metal at satisfactory casting efficiency.

Imperial Dross Exchange Service is a systematic minimum-cost way of making your dross pay a dividend. Why not profit from this Imperial service as thousands of others are doing? Mail us a post card stating the size dross drum you would like.

Imperial
TYPE METAL COMPANY
SERVING THE GRAPHIC ARTS *Exclusively*
PHILADELPHIA 34 • NEW YORK 7 • CHICAGO 50

Speed up the folding of your publication and book work



The New Dexter Single Sheet Double Sixteen Folder

Covering just about the entire range of magazine and book work, and handling sheets of maximum size 44 x 58", minimum 25 x 36", this new Dexter machine produces 16 and 32 page signatures of page sizes from 11 x 14½" to as small as 6¼ x 9".

Recommended speed is 4,500 cycles per hour. Actual production will depend on kind of paper and quality of work desired.

	Page size *Three right angle folds*	
At each cycle the machine delivers two 16 page signatures or one 32 page signature made up of inserted 16's.	Maximum 11 x 14½"	Minimum 6¼ x 9"

These signatures are the same impositions as the old type Dexter Double Sixteen.

	Two right angle folds with third fold parallel to second fold	
This signature also is the same imposition as the old type Dexter Double Sixteen equipped with parallel 16 attachment.	7¼ x 22"	4½ x 12½"

Using perforator provided, two-up signatures may be torn apart to yield final page sizes from 7¼ x 11" maximum to 4½ x 6¼" minimum.

Equipment includes slitter, perforator, headers-up, Cross combing feeder, stacker deliveries and motorized variable speed drive.

Dexter Folder Company
General Sales Offices
330 West 42nd Street, New York 36, N. Y.
Boston, Philadelphia, Washington, Cleveland, Chicago, St. Louis
Agents in principal foreign countries

Oklahoma City, Okla. (installed by Western Newspaper Union); Superior Press, Inc., Memphis, Tenn., (installed by Western Newspaper Union); Watson-Focht Co., Sweetwater, Tex., (installed by Western Newspaper Union); and Dosie & Johnson, Milwaukee, Wis., (installed by Western Newspaper Union).

"Twenty-two Special" Slot Rotary Perforators—Pulver Press, Boulder, Colo. (installed by Western Newspaper Union); Dudman Printery, Macomb, Ill., (installed by Type & Press of Illinois, Inc.); Bloomfield (Ind.) *News*, (installed by American Type Founders, Inc.); Dundalk Printing Co., Dundalk, Md., (installed by American Type Founders, Inc.); Kendall Printing Co., Falmouth, Mass., (installed by Wild & Stevens, Inc.); Lakeview (Mich.) *Enterprise*, (installed by Western Newspaper Union); Federal Telephone & Radio Corp., Clifton, N. J., (installed by Addressograph-Multigraph Corp.); Fuelane Corp., Liberty, N. Y., (installed by E. P. Lawson Co., Inc.); Coughlin Co., Watertown, N. Y., (installed by American Type Founders, Inc.); and Cody (Wyo.) *Times*, (installed by A. E. Heinsohn). Pony Vari-Speed Rotary Perforator—Strauss Stores Corp., Maspeth, N. Y., (installed by E. P. Lawson Co., Inc.); and Smith Printing Co., Williamsport, Pa., (installed by Gane Brothers & Lane, Inc.). Gang Stitchers—Observer Printing House, Inc., Charlotte, N. C., (installed by Southeastern Printers Supply Co.); and Craft Press, Inc., Chambersburg, Pa., (installed by John H. Burke Co.). Super XX Heavy Power Perforator—American Printing Co., Temple, Tex., (installed by E. C. Palmer & Co., Ltd.).

Tell Us About Yourself

PLANT managers, production and mechanical executives move about every now and then. If you change positions from one town or plant to another, or if your executive title changes, please let *Printing Equipment Engineer* know about it. We'll be happy to change mailing stencil to your correct title and address.

Miller E·B·Co. Inking Train

Exceptionally good ink distribution is secured from the long train of vibrators and distributors which transfer the ink from the fountain to the form rollers. Form rollers are equipped with a patented lateral adjustment which eliminates end play. Two different sizes of form rollers, which are mounted on anti-friction ball-bearings, make possible smooth lays of ink on all types of copy from heavy solids and tints to large, fine-screened halftones and line copy. All intermediate and ductor rollers are interchangeable.

MILLER PRINTING MACHINERY CO.
1103 Reedsdale Street Pittsburgh 33, Pa.

MILLER E·B·CO

MILLER E·B·CO

1953 ITCA Contest

Members of the Intl. Typographic Composition Assoc. have been asked to persuade their apprentices to enter the 1953 Apprentice Design Contest sponsored again by the ITCA. Divided into two classes, awards will be given for the best design of ITCA stationery for use in 1954 and the best cover page for the 1953 Annual Convention Program. All designs must be submitted for judging not later than July 31, 1953. Entry blanks may be obtained by writing ITCA Headquarters, 1015 Chestnut St., Philadelphia 7, Pa. Entries will be accepted until May 1, 1953.

Books

(Continued from Page 46)

dustrial Relations. Introductory to the above named sessions are the papers presented by then President Arthur A. Wetzel on *The Unfurrowed Brow*, and *The Operating Future of the Printing Industry of America* by present President John M. Wolff, jr.

GPO Style Manual

THE latest revision of the *Style Manual* published by the United States Government Printing Office for its own use and for the use of other governmental agencies is now available. The *Style Manual* is also adaptable for use by printers, publishers, printing students and other members of the Graphic Arts industry as it contains a wealth of information pertaining to proper style in marking and writing copy for publication.

The first 229 pages of the 492 page unabridged volume deals with general rules of English grammar, spelling, capitalization, punctuation, and abbreviations. It is this part of the manual that is available in an abridged edition for its contents in-

There are lots of ways to Humidify your Plant

. . . but these companies use Armstrong Steam Humidifiers

• ARMSTRONG HUMIDIFIERS introduce clean dry steam directly into the atmosphere—automatically increase humidity to keep it within 1% or 2% of the desired level. They are easily connected to existing steam and electrical or air systems, cost from a few pennies to perhaps $1.00 per day to operate depending on size of unit. A unit capable of supplying 60 lbs. of moisture per hour lists at only $182.25 complete with control.

Why delay? *SEND FOR BULLETIN 1774* giving complete details and prices.

Partial List of Users:
A. K. D. Printing Co.
Ashby Printing Co.
Baring Press
Chicago Rotoprint Co.
Eastern Offset, Inc.
Grit Publishing Co.
Joliet Herald News
Ketterline Litho. Mfg. Co.
McDonald Printing Co.
Meredith Publishing Co.
The Newton Press
Press Printing Co.
U. S. Gov't. Printing Office

ARMSTRONG MACHINE WORKS

847 Maple Street, Three Rivers, Michigan

LEADING IN DEPENDABLE PERFORMANCE

Wood Dry Mats are always made to a high quality standard that helps you maintain the character of good newspaper reproduction.

WOOD FLONG CORPORATION

HOOSICK FALLS, N. Y.

WOOD DRY MATS

New York City Office
551 FIFTH AVENUE, NEW YORK 17, N. Y.

clude material the Graphic Arts executive would generally have need to refer to. The remainder of the *Style Manual* is mostly concerned with chapters which cover style suggestions for governmental printing jobs.

A few of the chapter headings in the abridged manual are: Compound Words; Guide to Capitalization; Numerals; Italics; Signs and Symbols; Tabular Work; Text Footnotes, Indexes and Contents; Datelines, Addresses and Signatures; and Useful Tables.

Each chapter covers in alphabetical order the different points of the subject matter, being discussed. For example, Chapt. 9 on Punctuation includes proper grammatical rules and examples of the use of braces, brackets, commas, dashes, exclamation points, hyphens, parentheses, etc.

The printer is frequently in need of a guide or reference when questions arise which concern italics, numerals, capitalization, etc. We are certainly not in error in saying that the GPO *Style Manual* would provide most of the answers which are grammatically correct.

Style Manual—Published by the United States Government Printing Office. Unabridged edition: 492 pages; size, 6 in. by $9\frac{1}{4}$ in.; dark blue buckram cover with gold stamping; price, $2.25 per copy. Abridged edition: 229 pages and index; paper cover; price, $1 per copy. May be ordered from Supt. of Documents, U. S. Government Printing Office, Washington 25, D. C.

Dan Stearns (left) has been named Manager of the newly created Midwestern Region of Clark Equipment Co.'s Industrial Truck Div., according to an announcement by Walter E. Schirmer, Vice Pres. in Charge of Sales. The new region takes the place of Clark's North Central and West Central Regions. Stearns will make his headquarters at 310 S. Michigan Ave., Chicago. Assisting him will be Glen R. Johnson (center). Al G. Morrison (right) has been named a dealer for Western Michigan. Associated with Morrison will be Stephen C. Lobdell and Thomas R. Zelinsky. The new dealership, to be known as Morrison Industrial Equipment Co., will be located at 3015 S. Division St., Grand Rapids, Mich. Branches in Lansing and Battle Creek, Mich., will be in charge of Lobdell and Zelinsky respectively. Eastern Michigan now constitutes the territory of Materials Handling Sales Corp., 300 E. Milwaukee Ave., Detroit.

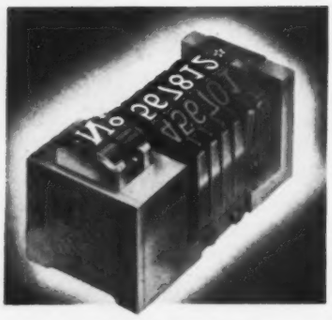
Equipment & Supplies

(Continued from Page 24)

print as well as first down colors. The company points out that the ink should be used only on the specified coated types of Cellophane for which it is made, and not on plain transparent or specialty films of the saran-coated type. More details may be obtained by mentioning PEE No. 548 in your request.

Standardized Gear Drives

THE Ferguson Roller Gear Drive, an intermittent motion or indexing mechanism, is now available in many standardized designs, according to an announcement by Ferguson Machine & Tool Co., Inc. Standardized drives are available with 6, 8, 10 and 12 stops per



numbering?
look into...

ULTRA-FORCE TYPOGRAPH

All-purpose typograph for platen or flatbed cylinder presses. High-speed operation, perfect impressions. Write for prices and catalog.

WM. A. FORCE & COMPANY, INCORPORATED
216 NICHOLS AVENUE, BROOKLYN 8, N.Y.

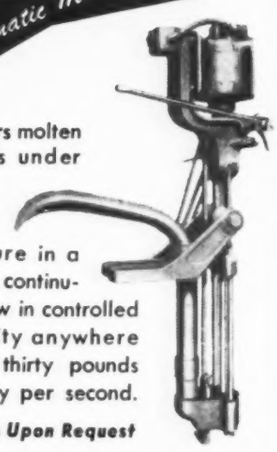
The FORCE of NUMBERS

NEWSPAPER & PRINTING PLANT ENGINEERING

NEW BUILDINGS • MODERNIZATION
SURVEYS • CONSULTATION

ROBERT W. DICKERSON
2063 EAST 4TH STREET • CLEVELAND 15, OHIO

Automatic Metal Pump



Delivers molten metals under pressure in a steady continuous flow in controlled quantity anywhere up to thirty pounds of alloy per second.

Details Upon Request

International Newspaper Supply Corporation
134 N. La Salle Street
Chicago 2, Ill.

rev. of the output shaft and with indexing time of either ¼, ⅓, ½ or ¾ of the total cycle time. Because of the infinite number of possible designs of the roller gear drive, the Ferguson company will continue its special design program for individual applications. A complete description of the Ferguson drive appeared in the December 1952 issue of *Printing Equipment Engineer*. More information on the standardization program may be obtained by mentioning PEE No. 596 in your request.

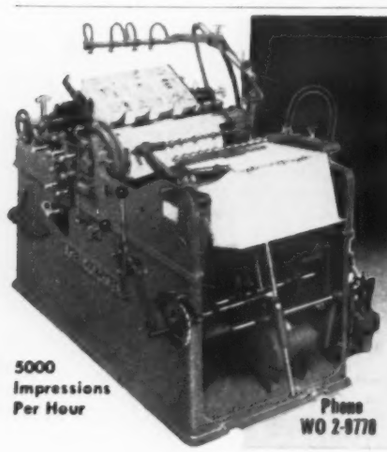
Package Truck

A PACKAGE truck designed for inter-plant and inter-departmental handling of packages, has been introduced by Leebaw Mfg. Co. A removable wood floor on the truck slopes

downward towards the back to prevent spillage.

Standard models are equipped with a 4 in. swivel caster on each end and two 5 in. casters in the center, or four 4 in. swivel casters on each of the corners. Specifications of standard models are as follows: inside dimensions range from 27 in. by 53 in. to 36 in. by 60 in.; outside dimensions range from 29 in. by 54 in. to 38 in. by 61 in.; height above casters on all models, 60 in.; shipping weight ranges from 185 lbs. to 240 lbs. Please mention PEE No. 582 when requesting further information.

Improved Spray Unit — An improved model of the Job - Master Anti - offset Dry Spray Unit in which Jobmaster Co. claims greater flexibility of adjustment, has been announced. Nozzle position can now be adjusted quickly to either concentrate the spray powder in a desired area of the printed sheet, or it may be adjusted to disperse the powder evenly over the entire surface of the printed sheet at the desired flow rate. While the standard model is of the continuous spray type, installations for synchronized delivery operation are available. In the Job-Master Spray Unit an approved powder may be used. This unit may be operated on a number of well known makes of smaller letterpress and offset presses. An illustrated bulletin is available for the asking but please mention PEE No. 578 in your request.



5000 Impressions Per Hour

Phone WO 2-8770

Lowest Priced CYLINDER PRESS IN THE UNITED STATES

GLOCKNER BUILT TO AMERICAN STANDARDS FOR THE AMERICAN PRINTER

The Sensationally New 15 x 22" Automatic Cylinder Press

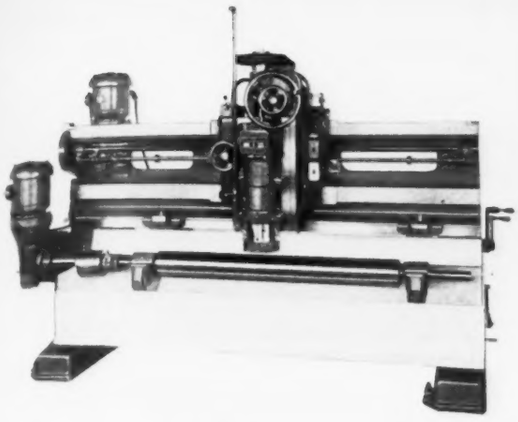
★ Large trade-in allowance
★ Old equipment down
★ Terms to suit
★ Free installation and erection
★ Full year warranty
★ See it near you, at our expense. Mail the coupon today!

Sales and Service

INTERNATIONAL PRINTING EQUIPMENT CO.
540 WEST CONGRESS STREET
DETROIT 26, MICHIGAN

COUPON BRINGS DETAILS

☐ Send literature on the GLOCKNER.
☐ You may arrange a demonstration at your expense.
Name
Address
City State
Telephone



ROTOGRAVURE
GRINDING AND POLISHING MACHINE
Precision Built to Grind and Polish to .0003"

WE TAKE PRIDE

In 25 Years manufacturing gravure equipment and supplies—1928 to 1953.

In 23 Years manufacturing our Grinding and Polishing Machine—1930 to 1953.

STANDARD PROCESS CORPORATION
Manufacturing Gravure Equipment & Supplies
2704 W. Roscoe Street • Chicago 18, Ill.

BEVERIDGE

So You Are An *Exacting* Stereotyper?

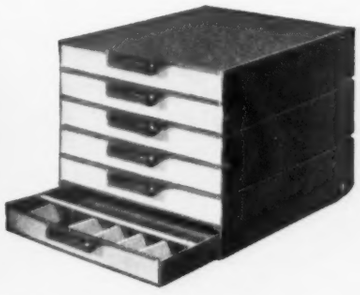
If you are, be proud of it. Don't ever apologize for demanding a mat that will meet your particular needs. Beveridge, exacting mat makers, likes to talk to exacting stereotypers. And we go to great lengths to fulfill your mat requirements whether for curved newspaper work, multi-cast work or commercial flat work. Yes, you can be sure that succeeding orders will be exactly like the first order regardless of equipment or shrinkage. Get in touch with Beveridge, now!

New Products Division
The Beveridge Paper Company
Indianapolis 4, Indiana

Beveridge Dry Mats

Silk Screen Catalog

THE 1953 edition of the Naz-Dar catalog of silk screen process colors, equipment and supplies is now available from the Naz-Dar Company. Illustrations and brief descriptions accompany each item listed in the 64 page catalog. Included are silk screen inks, bases, extenders, varnishes, solvents, adhesives, fillers, decal paper and silks. Other sections are devoted to arc lamps, frames, printing units, squeegees, cutting tools, etc. If you desire a copy of this catalog, please mention PEE No. 600 in your request.



Small Parts Cabinet— The Little Gem steel cabinet is designed for the storage of small parts, states the Equipto Div., Aurora Equipment Co. The cabinet may be used either individually, in stacks, under counters or on shelves. The drawer measures 11 in. by 11 in. by 1¼ in. The Little Gem accommodates up to 28 compartments. Front of each compartment is curved for withdrawal of parts. An overhang at the rear is for preventing items from shuffling when drawer is jerked open or slammed shut. Label holders are included. Kindly refer to PEE No. 574 if more information is desired.

Offset Press Specimens

A PORTFOLIO containing three specimens printed on Miller E.B.Co. Offset Presses, has been prepared by Miller Printing Machinery Co. Each of the specimens and the portfolio were printed in different plants. They are available by requesting PEE No. 591.

Fork Truck Load Stabilizer

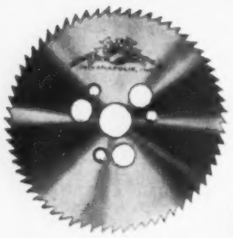
A HYDRAULIC-POWERED Load Stabilizer, an attachment for Elwell-Parker fork trucks with capacities up to 6000 lbs., has been introduced by the Elwell-Parker Electric Co. The unit is specially designed for transportation of unstable and semi-stable loads; it is also designated for stable loads which are subject to rough travel where they might be bounced off the skid or pallet. In addition, the Stabilizer will allow fork truck operators to stack at considerable heights with safety. The shape or size of the Stabilizer plate may be altered to meet specific loads. Usually, the plate is faced with steel although it may be faced with rubber or wire mesh. Distance between the forks and the plate is 41⅝ in. min., 75 in. max. Clamping

pressure can be varied to suit product handled within limits of 150 to 1350 p.s.i. Full information will be sent if you will mention PEE No. 566 in your request.

Plant Electric Power Distribution Practices Bulletin

A BULLETIN, a guide for plant engineers on electric power distribution practices in large and small plants, has been announced by the General Electric Co.

The 28 page, illustrated, two-color bulletin, designated as GEA-5900, is entitled *Industrial Power Distribution Idea Book*. The publication covers utility distribution practices; methods of buying



FREE
SAW BLADES
NO KIDDING!

Our saw sharpening coupon books contain a profit sharing coupon! Three such coupons are good for a brand new saw blade up to 10" in diameter—worth $4 to $7, depending on size. On top of this—our coupon books save you 7½% on sharpening costs; less than 75c per blade, return postage paid. Your saws sharpened BETTER—or else. 24-hour service. 25 years of experience. A 2c post card brings details.

AUTOMATIC SAW SHARPENING CO., INC.
735 E. OHIO STREET INDIANAPOLIS 2, IND.

Leading printers agree ideal SYNTHOX is the roller for this year—

and each succeeding year—because they are the softest synthetic rollers on the market today which remain soft throughout their entire life. They are SO EASY to clean and have a velvety ink-receptive surface.

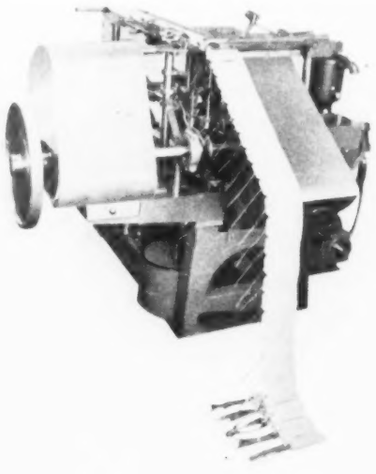
IF IT REVOLVES GET IDEAL COVERING

IDEAL ROLLER & MANUFACTURING COMPANY
6069-6073 Maywood Avenue, Huntington Park, Calif. · 2512 West 24th Street, Chicago 8, Illinois · 71-24 Thirty Ninth Avenue, Long Island City 1, N. Y.

electric power; what to do when a choice of primary voltages is available; application of primary switches and circuit breakers; types and arrangements of primary cables; and types of load-center distribution systems. Also discussed in the booklet are the following topics: Use of branch feeder switches, starters, and fuses; grounding of systems; combined power and lighting; how to calculate interrupting capacity; how to apply capacitors; methods of obtaining economical direct current, and other allied subjects. When requesting a copy of this bulletin please mention PEE No. 546.

Gang Tag Attachment

A GANG tag attachment for Graeber wiring machines which allows wiring continuous tags with single or double wires, has been announced by Graeber Stringing and Wiring Machine Co. The attachment will accommodate



tags from sizes No. 3 to No. 8. It can be removed to allow the use of a magazine for wiring single tags or products automatically with a suction feed. The Graeber wiring machine will take single tags in sizes up to 5 in. by 14 in. Wire from 21 to 26 ga. can be used in lengths from 5 in. to 9 in. for double wires, and 10 in. to 18 in. for single wires. Sponsor claims the machine wires tags at speeds up to 5400 per hr. When requesting further details, please mention PEE No. 586 in your request.

Triple Aplanatic Magnifier

GARDNER Laboratory, Inc., has announced the 5X Hastings Triple Aplanatic Magnifier which is available as a magnifier only, including a detachable handle and tripod, or with a hand illuminator which provides a ready light source. The magnifier may be removed from the illuminator housing for use separately. Sponsor claims the illuminator shade is designed to flood object with sufficient light without hindersome glare. Gardner also states that the magnifier is corrected for chromatic and spherical aberration. Hand illuminator models are available for operation by either flashlight batteries or electric current by means of a 5½ ft. cord and plug. Further details may be obtained by mentioning PEE No. 564 in your request.

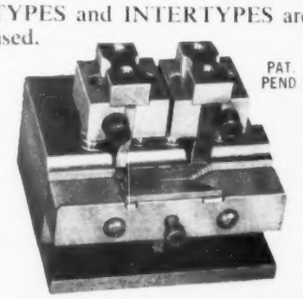
(*Continued on Page 72*)

APPRAISALS
FOR ANY PURPOSE
(Nationwide Service)
WE CAN GET YOU A LOAN AT THE LOWEST RATES
Appraisals made for Mortgage Loans, Refinancing, Partnership Dissolutions, Mergers, Replacement Valuations, Fire Insurance, Taxes, Liquidations, Etc.
. . . . *Confidential* . . . .
PRINTCRAFT REPRESENTATIVES
277 Broadway, New York, N.Y.—WOrth 4-1370
"A Trusted Name in the Printing Industry"

Stop STATIC!
. . . it's easily, safely and inexpensively done with the SIMCO "Midget" Static Eliminator. It's guaranteed! Write for information.
the SIMCO company
9th and Master Streets
Philadelphia 22, Penna.

DISTRIBUTOR STOPS? MISALIGNMENT? HAIRLINES?

These are common and **costly** matrix troubles wherever LINOTYPES and INTERTYPES are used.



The Align-A-Mat

This precision-built tool will correct worn lugs on mats so they will distribute properly. The same operation will also restore alignment. When sorting up fonts, old mats will align with new ones.

Over 400 leading large and small newspapers, job printers, trade and ad shops are using the *Align-A-Mat* and saving **time** and **money**.

The *Clean-A-Mat* helps eliminate hairlines.

Please write for descriptive literature.

FISK INDUSTRIES, 130 W. 46th ST. NEW YORK 36, N. Y.

CLASSIFIED ADVERTISING

ALL CLASSIFICATIONS

$.75 per line 1⅜" wide. Minimum ad 5 lines, 29 characters per line. Cash with order.

CLOSING DATE—15th of Month preceding Date of Issue

We will forward all mail addressed to Box Numbers. When answering Box Numbered ads, address as follows: Box Number . . . PRINTING EQUIPMENT Engineer, 1276 West 3rd Street, Cleveland 13, Ohio.

STAR CUT CEMENT

Famous since 1936, hundreds of users testify to the effectiveness of STAR CUT CEMENT. Do a better job of mounting photoengravings, stereotypes and electrotypes by using STAR CUT CEMENT. Composing, stereotype, electrotype and photoengraving executives must see that the mounting job is done right. They know the value of a cement that permits mounting cuts quickly and holds them in place. Be sure to use the PROVED cement—STAR CUT CEMENT.
65c per tube—$5.50 per doz.
$5.00 per doz. in 2 doz. lots.
$4.50 per doz. in gross lots.

STAR CEMENT COMPANY
45 Malone Avenue
Belleville 9, N. J.

FOR SALE

Complete Litho Plant in Los Angeles. Established 16 years. Harris Press equipped. A-1 Condition. Will sell or lease building. Gross sales $80,000 a year. Reply Box 494.

PRESSMEN

Desirable openings in the Philadelphia area for experienced pressmen and senior assistants on cylinder and rotary presses. Send brief resume including age, education, and experience to Box 495, PRINTING EQUIPMENT Engineer.

HELP WANTED

JOB Compositor. Hand or Machine. Permanent job in San Diego, Calif. Write Box 496, Printing Equipment Engineer.

FOR SALE

Miehle 1/0 Two Color Press, Serial No. 15, 552 with Dexter pile feeder Serial No. 9613, extension delivery, 220 AC 3 phase 60 cycle motor equipment. Press completely rebuilt in last quarter 1952. Offered as is on floor. Inspection welcomed. Reply Box 497, Printing Equipment Engineer.

THE DOYLE INFRARED DRYER
Patented
for all types of printing machinery
THE DOYLE VACUUM SHEET CLEANER
Patented
Removes dirt, dust, lint and dry spray from paper while printing
The J. E. Doyle Co., 1220 West 6th St., Cleveland 13, Ohio

VANDERCOOK PRE-PRESS EQUIPMENT

Manufactured by the largest producer of proof presses and other pre-press equipment for letterpress, offset and gravure. *Write for a catalog.*

VANDERCOOK PRE-PRESS CUTS COSTS!

VANDERCOOK & SONS, INC.
General Offices, Research Laboratory, Demonstration Room & Factory
900 N. Kilpatrick Ave., Chicago 51, Ill. Phone: EStebrook 8-1400
Eastern Sales, Service & Demonstration Room
216 East 45th St., New York 17, N. Y. Phone: MUrray Hill 2-3387

MEN WANTED • POSITIONS OPEN

Production Manager • Offset-Letterpress • Southwest	$6,000-$9,000
Quality Control Man • Litho	OPEN
Superintendent • Letterpress • West	$6,000-$9,000
Foreman • Pressroom • South	$7,500
Foreman • Pressroom • Perfector Press and lightweight paper experience necessary	$6,500-$7,000
Salesman • Printing	OPEN

GRAPHIC ARTS EMPLOYMENT SERVICE
Dept. PE-4, 307 E. 4th Street, Cincinnati 2, Ohio
Specialists in Placing Key Personnel in the Graphic Arts Industry

The R & B EXTENSION DELIVERIES

for MIEHLE, BABCOCK, PREMIER and other presses

•

AUTOMATIC PAPER LIFTS

•

Special purpose equipment for the Graphic Arts Industry

CONSULT US ON YOUR PARTICULAR PROBLEM

THE RATHBUN & BIRD COMPANY, INC.
DESIGNERS AND MANUFACTURERS • FOUNDED 1898
DEPT. PE 379 WEST BROADWAY NEW YORK 12 N. Y.

For Sale—HOE MAGAZINE ROTARY
48 page 11 x 14½ Color Cylinder . . . Selas Dryers—A. C. Motors . . . 3 Arm Reel and Paster, LIKE NEW
BEN SHULMAN ASSOCIATES
500 Fifth Avenue, New York 18, N. Y. Phone BRyant 9-113

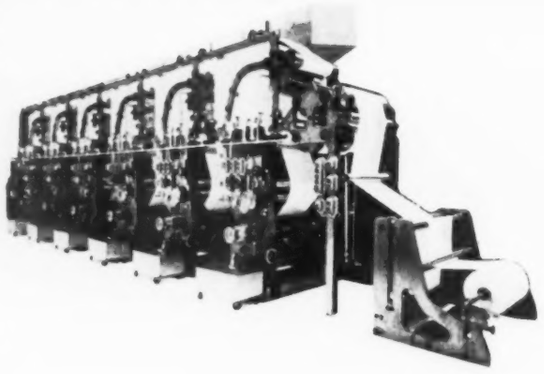
WEB DRYING APPARATUS
for ROTAGRAVURE • WEB-OFFSET • ANALINE LETTERPRESS
B. OFFEN & CO.
168 N. Michigan Ave. Chicago 1, Illinois

SPECIALISTS *in Moving Printing Equipment*

We specialize in dismantling, moving and erecting newspaper and commercial printing presses as well as printing equipment of all kinds. Experienced, trained personnel equipped with modern equipment moves one machine or a complete plant any distance required. All contracts are handled promptly and are fully covered by insurance.

The ALLMEN CO. 8416 LAKE AVE. CLEVELAND 2, O. • OLympic 1-2300

Multi - Color Gravure Press—Kidder Press Co., Inc., recently introduced its Heavy Duty Multi - Color Gravure Press. The firm states that during the trial run the press was run in excess of 1000 f.p.m. on frozen food stock and about 750 f.p.m. on Cellophane. The six color press is available in 36 in., 44 in. and 54 in. widths and is equipped with Offen dryers. Kidder constant tension unwind and rewind equipment is included with the press. Please mention PEE No. 576 when requesting more details.



Equipment & Supplies

(Continued from Page 70)

Fotomaster Camera Bulletin

THE uses of the Fotomaster Photodimensional and Proportioning Camera are described in an eight page, two-color bulletin issued by Modi-Graphic Inc. Examples of photodimensional control obtained with the camera are shown. Specifications are given and illustrations of the Fotomaster, including close-ups of its features, complete the bulletin. A description of the camera appeared in the January 1953 issue of *Printing Equipment Engineer*. Please refer to PEE No. 558 should you desire a copy of this bulletin.

Silk Screen Press For Small Size Sheets

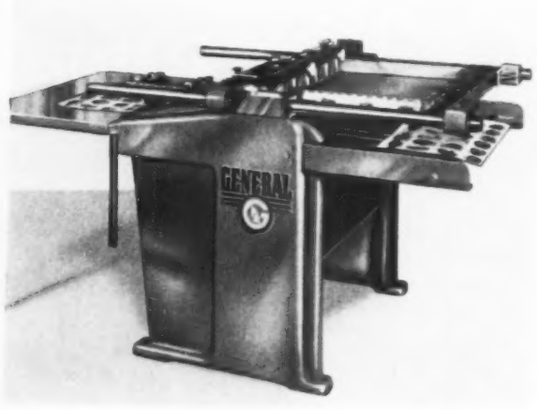
GENERAL Research and Supply Co. has announced two models of its silk screen press designed to handle small size sheets required for greeting cards, decals, labels, catalog and menu covers, daylight fluorescent applications, printed electrical circuits and similar work. Maximum sheet size of the Model 18 is 13 in. by 20 in., while the Model 24 will accommodate 17 in. by 25 in. sheets.

Speed of both models is claimed to be 3000 sheets per hr. Sponsor claims that hair line register can be adjusted while the press is running. Range of stock handled includes paper up to 40 pt. board. Other features of the press include line contact printing and automatic color distribution. The company states that all types of silk screen inks and adhesives may be used on the press.

Structural features of Models 18 and 24 include a stainless steel cylinder jacket, aluminum feed boards and cast iron frame. The press was demonstrated at the recently held convention of the Screen Process Printing Assoc. in Chicago. Additional details may be obtained by mentioning PEE No. 542 in your request.

Temperature Control Manual

THE Partlow Corporation has published a revised edition of its manual titled *The Design and Process Engineers Guide to Industrial Temperature Measurement and Control*. The 24 page, two-color manual, available to plant managers, process, design and heating engineers, includes the basic principles of industrial temperature control. Different types of control systems are defined and are distinguished between so that the engineer may select the type most suited to a particular application. Discussed in the manual are the eight ways of responding to temperature; the five ways of putting that response to work; and the nine basic Partlow instrument types. Evaluation of systems and the important considerations in application engineering are dealt with. Typical control circuits and piping system arrangements, as well as the ranges and calibrations of scales and dials are presented diagrammatically. When requesting a copy of this manual, please refer to PEE No. 560.



The Model 18 General Silk Screen Press for handling 13 in. by 20 in. sheets. General Research and Supply Co. has also announced the Model 24 for 17 in. by 25 in. sheet sizes.

ADVERTISERS' INDEX
April 1953

P. E. E. REPRESENTATIVES

WILLIAM L. OSBORN, Eastern Manager, 1712 Grand Central Terminal, New York 17, N. Y. Phone MUrray Hill 6-5980.

MELBURN O. SIMMONS, Mid-West Manager, 333 North Michigan Ave., Chicago 11, Ill. Phone DEarborn 2-6467.

GEORGE GELL, Central District Manager, 1276 West Third St., Cleveland 13, O. Phone CHerry 1-6643.

Alan Wood Steel Co 48
Allmen Company, The 71
American Publishers Supply, Inc 47
Armstrong Machine Works 67
Automatic Saw Sharpening Co., Inc 70

Baum, Russell Ernest 10, 11
Beveridge Paper Co., New Products Div 66
Burgess Cellulose Co 50

Certified Dry Mat Corp 24
Challenge Machinery Co., The 17
Cheshire Mailing Machines, Inc 55
Clark Equipment Co 51
Cline Electric Mfg. Co 14
Colwell Litho Products, Inc 56
Cromwell Paper Co 63
Cutler-Hammer, Inc 22, 23

Dexter Folder Co 25, 65
Dickerson, Robert W 68
Doyle, The J. E., Co 58, 71
Dutro, Orville, & Sons, Inc 15

Eastern Newspaper Supply, Inc 50
Federated Metals Div., American Smelting & Refining Co 61
Fisk Industries 70
Flint, Howard, Ink Co 64
Force, Wm. A., & Co., Inc 68

General Electric Co 57
Goss Printing Press Co., The 19
Graphic Arts Corporation of Ohio 62
Graphic Arts Employment Service 71

Hammond Machinery Builders ..... Inside back cover
Harris-Seybold Co 36, 37
Heidelberg Eastern Sales Co 8
Hoe, R., & Co., Inc 6

Ideal Roller & Mfg. Co 70
Imperial Type Metal Co 54, 65
Interchemical Corp., Printing Ink Div 12, 13
International Newspaper Supply Corp 68
International Printing Equipment Co 68
Intertype Corporation ..... Outside back cover

Langston Monotype Machine Co 2
Linotype Parts Co ..... Inside front cover, 25
Ludlow Typograph Co 7

Main, Chas. T., Inc 58
Matrix Contrast Corp 20
Mergenthaler Linotype Co 43
Miller Printing Machinery Co 66

New England Fibre Blanket Co 53
Nolan Corporation 53

Offen, B., & Co 71

Printcraft Representatives 70

Rapid Roller Co 4
Rathbun & Bird Co., Inc 71
Richards, J. A., & Co 58
Rosback, F. P., Co 20
Rouse, H. B., & Co 52

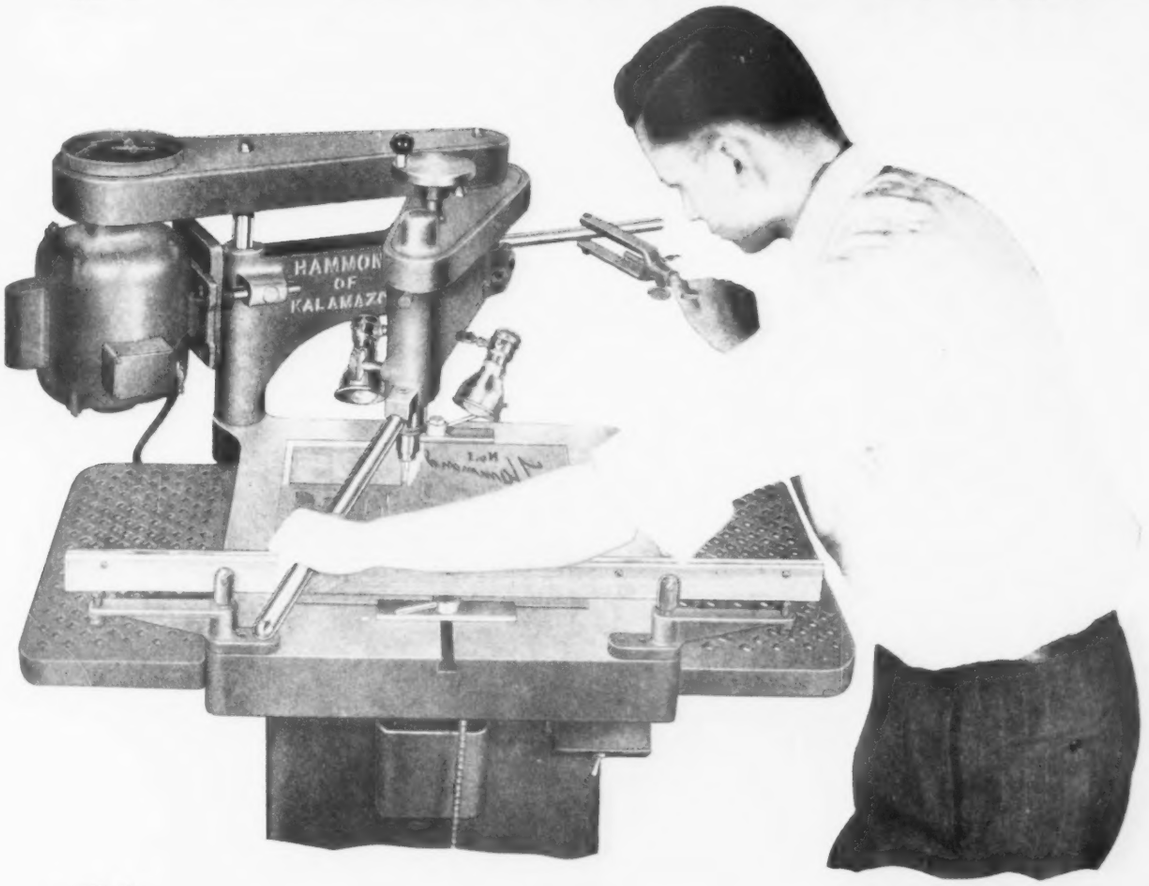
Scott, Walter, & Co 3
Shaffstall Equipment, Inc 45
Shulman, Ben, Associates 71
Simco Company, The 70
Sinclair & Carroll Co., Inc 60
SKF Industries, Inc 55
Sta-Hi Corporation 1
Standard Process Corp 69
Star Cement Co 71
Strong Electric Corp 21

Timken Roller Bearing Co., The 9
Tingue, Brown & Co 49

Vandercook & Sons, Inc 71

Wesel Mfg. Co 18
Western Printing Machinery Co 24
Wood Flong Corp 67
Wood Newspaper Machinery Corp 16

a GOOD *Radial Router* at a MEDIUM PRICE!



Hammond Radial Router

There are all kinds of radial routers . . . cheap and inadequate . . . *the good Hammond Radial Router at a medium price* . . . and the higher priced extra sensitive engravers' routers.

The Hammond Radial Router has what it takes to give you good routing performance and years of trouble free service. The ball bearing spindle runs at 12,000 RPM. It incorporates greased sealed bearings, quill and spline shaft. The pulleys and other parts are dynamically balanced for smooth, vibration free operation. The Hammond Radial Router is fully powered, ruggedly built and has good "feel" and sensitivity. The machine has a capacity of up to full-page plates. *The Hammond Radial Router is a good machine at medium price.* Write for complete information, there is, of course, no obligation.

Hammond Machinery Builders INC.

1604 DOUGLAS AVENUE • KALAMAZOO, MICHIGAN

Intertype line composing machines preferred because...

AUTOSPACER • CHANNEL ENTRANCE LOCK • NO-TURN AUTOSHIFT • ELECTRIC POT • DIRECT READING ASSEMBLER SCALE • NEW SHOE FOR EJECTOR LEVER ARM • ONE-PIECE MAGAZINE ESCAPEMENT DELIVERY SLIDE SAFETY RELEASE • ALEMITE FITTINGS • SIX-MOLD DISK • VISILITE® MAGAZINE PENTRATED MOLDS • IMPROVED FIRST-ELEVATOR LEVER LINK • ADJUSTABLE VISE CLOSING ATTACHMENT • MAIN CAM COVERS • STREAMLINED BASE IMPROVED MOUTHPIECE SHIELD FOR ELECTRIC METAL POT • FINGER-FLIP MIXER LEVER • LINE TRANSFER SAFETY SINGLE DISTRIBUTOR BOX • COMPOSING STICK ATTACHMENT • UNIFORM TOUCH KEYBOARD • ADJUSTABLE POT PUMP SPRING • AUTOMATIC FONT DISTINGUISHER • ACCESSIBLE KEYBOARD • PARTLOW TEMPERATURE CONTROL OVERHANG CASTING MOLD • BAFFLE MOUTHPIECE • AUTOMATIC DISTRIBUTOR SAFETY • ADJUSTABLE KNIFE BLOCK • AUTOMATIC METAL FEEDER • MICROMETER KNIFE ADJUSTMENT • OILITE BEARINGS GROOVED MOLD BODY • MOLD-SLIDE SAFETY DEVICE • TRIANGULAR SHELF MOLD • DISTRIBUTOR SIGNAL LIGHT • STAR WHEEL FRICTION CLUTCH MAGAZINE SAFETY SWITCH • V-BELT MOTOR DRIVE • NEW FRICTION PULLEY FOR THE MAGAZINE POWER SHIFT THE SAFETY PI STACKER • VISE FOOT RELEASE • THE NEW FORKED LEVER AUTOMATIC BLOWER SWING-OUT FRONT COVERS NEW LEFTHAND TRIMMING KNIFE • WEAR-RESISTING ALLOY CASTINGS AUTOMATIC JUSTIFIED INDENTION NEW MIXER TIMING DEVICE

Everywhere you look on an Intertype® machine you find features that assure uniformly good slugs, high production efficiency and maximum operator convenience and safety. New Catalog CHVFG fully explains all these and many other important features. Write for your copy today.

Set in Futura Family

INTERTYPE
CORPORATION

Brooklyn 1, N.Y. • Chicago 10, Ill. • San Francisco 11, Cal.
Los Angeles 15, Cal. • New Orleans 10, La. • Boston 10, Mass.

In Canada: Toronto Type Foundry Co. Ltd., Toronto
Montreal, Vancouver, Winnipeg, Halifax

LOOK TO PROGRESSIVE INTERTYPE